

ENERGY EFFICIENCY SAVINGS ALLOWANCE IN SOUTH AFRICA: AN INTERNATIONAL COMPARISON

by

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ABSTRACT

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New and proposed tax relief sections have been added to the Income Tax Act no 58 of 1962 over the past few years and this is an indication that the South African (SA) Government acknowledges that there is considerable investment required, by both SA taxpayers and the SA Government, to go "green" and to save energy. The National Treasury proposed the introduction of section 12L to the Income Tax Act No 58 of 1962 (the Act) in the 2009 Taxation Laws Amendment Act. This will provide an incentive for taxpayers to benefit from energy savings by incurring capital expenditure with the purpose of reducing energy consumption.

The idea with the proposed section 12L is that the more energy one saves, the less tax one pays. However, the proposed introduction of section 12L has led to uncertainty as to the process to be followed by a taxpayer, in order to qualify for the allowance. There will be a discussion on whether this notional allowance will be in addition to the allowances and deductions based on actual expenditure incurred in the investment of new green technologies.

The objective during the current study is to examine how government should formulate SA legislation in terms of section 12L of the Act to stimulate investment in the conversion of old technologies to new "green" technology. The challenges of improved energy savings will be addressed in the SA context, and compared to similar legislation in China and the



United Kingdom (UK). This comparison will identify the gaps, alternatives and possible improvements to the proposed SA section 12L.

Keywords:

Allowance

Energy

Efficient

Green

Technology



OPSOMMING

ENERGIE DOELTREFFENDHEID BESPARINGS TOELAAG IN SUID-AFRIKA: 'N INTERNASIONALE VERGELYKING

deur

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Nuwe en voorgestelde wetsartikels vir die vermindering van belasting is gedurende die laaste paar jaar ingedien. Dit is 'n aanduiding dat die Suid-Afrikaanse (SA) Regering erken dat aansienlike belegging benodig word om "groen" te raak en om krag te bespaar. Die Nasionale Tesourie het die indiening van artikel 12L in die Inkomste belasting Wet Nr. 58 van 1962 (Die Wet) in die 2009 Belasting Wysigingswet voorgestel. Dit sal as aansporing dien vir belastingbetalers om voordeel te trek uit energiebesparing deur om kapitaaluitgawes wat lei tot die vermindering van kragverbruik aan te gaan.

Die idée agter die voorgestelde artikel 12L is dat hoe meer energie 'n mens spaar, hoe minder belasting jy hoef te betaal. Die voorgestelde indiening van wetsartikel 12L lei egter tot onsekerheid oor die proses wat die belatingbetaler moet volg om vir die toelaag te kwalifiseer. Die bespreking sal insluit of hierdie voorgestelde toelaag bykomend sal wees tot die toelae en aftrekkings wat gegrond is op werklike uitgawes wat aangegaan is tydens belegging in die nuwe groen tegnologie.

Die doelwit met hierdie studie is om ondersoek in te stel in hoe die regering die SA wetgewing in terme van artikel 12L van die belastingwet moet formuleer om sodoende belegging in die omskakeling van die ou tegnologie na die nuwe "groen" tegnologie te stimuleer. Die uitdaging van energie besparing sal in die SA konteks aangespreek word en vergelyk word met soortgelyke wetgewing in die Verenigde Koningkryk (VK) en China. Die



gapings, alternatiewe en moontlike verbeterings in die voorgestelde wetsartikel 12L sal tydens hierdie vergelyking identifiseer word.

Sleutelwoorde:

Toelaag

Energie

Doeltreffendheid

Groen

Tegnologie



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ENERGY EFFICIENCY SAVINGS ALLOWANCE IN SOUTH AFRICA: AN INTERNATIONAL COMPARISON

CHAPTER 1 INTRODUCTION

1.1 BACKGROUND

Why would consumers, from residential to large corporate and industrial sectors, increase spending to "green" themselves and what are the requirements to realise real returns on energy efficiency investments? (Matthews, 2011:35).

The importance of going "green" is rarely questioned; however, the returns from these investments are often in doubt. The returns of capital investment in "green technology" must make monetary and investment sense when compared to the outlay.

Besides the non-monetary returns such as saving the environment, the SA Government will through tax savings and allowance, introduce an incentive to obtain a monetary return.

Given the scarcity of funds during economic downturns, the South African (SA) Government needs to consider every possible means that will increase the returns on "green" investments, (Matthews, 2011:35).

New and proposed tax relief sections have been introduced over the past few years and this is an indication that the SA Government acknowledge that considerable investment is required, by both SA taxpayers and the SA Government, to go "green" and to save energy. The National Treasury proposed the introduction of section 12L to the Income Tax Act No 58 of 1962 ("the Act") in the 2009 Taxation Laws Amendment Act. This will provide an incentive for taxpayers to benefit from energy savings if capital expenditure towards reducing energy consumption is incurred.

The idea of the proposed section 12L is that the more energy is saved, the less tax is paid. This new section has not been enacted and will only take effect on a date to be announced



by the Minister of Finance, by notice in the Government Gazette. The proposed introduction of section 12L has led to uncertainty as to the process to be followed by a taxpayer, in order to qualify for the allowance. However, once enacted and operational it should provide a valuable benefit to taxpayers.

The taxpayer that implements "green" electricity will receive a decrease in electricity costs due to the investment in implementing new clean technologies. This could, in terms of the notional allowance, realise a potentially higher income tax deduction with a concurrent lower income tax liability. However, due to the decreased electricity costs, it could also result in a lower section 11(a) income tax deduction and concurrent higher income tax liability. These facts highlight the importance of further research on the interrelations of section 12L and other applicable legislation.

The proposed notional allowance calculation, provided for in section 12L, directly relates to energy savings. In each year in which incremental energy efficiency savings are initially realised, the taxpayer will obtain a tax benefit in the form of a deduction of a notional allowance. Cash flow will be freed-up as a result of savings in electricity charges levied and consequential tax savings (due to a potentially higher income tax deduction and lower tax liability) due to the investment in new "green" energy saving technologies, (KPMG, 2010:1).

It is necessary to determine how the proposed section 12L notional allowance will interrelate with section 11(a)'s requirement for an expense to be actually incurred before it can be allowed as a deduction. The principle of 'actually incurred' versus 'necessarily incurred' was laid down in the *Port Elizabeth Electric Tramway Company Ltd v Commissioner of Inland Revenue,* 1936 CPD 241, 8 SATC 13. The term 'actually incurred' increases the field for deductable expenditure, and therefore implies that the notional allowance would be allowed as a deduction. This is further supported by the second principle that 'actually incurred' does not mean actually paid. The section 12L allowance will be a notional allowance, which implies that no actual payment, that is directly related to the purposes of this proposed section will occur. However, the proposed interrelation between this notional allowance and other deductions and allowances, in terms of the Act, has not yet been defined in the proposed legislation. The interrelation would deal with



whether the proposed notional allowance would be in addition to actual expenditure incurred by the taxpayer, for electricity usage. It would also deal with whether this notional allowance to convert from old to new "green" energy saving technologies would be in addition to any capital allowances on investments.

It is therefore necessary to determine whether the section 12L notional allowance will be in addition to the section 11(a) general deduction on actual expenditure incurred and the possible sections 12B, 12C or section 11(e) on capital allowances.

Due to SARS not having issued guidelines as yet and due to the above uncertainties, there is a need to compare the proposed section 12L legislation in SA to that of China and the United Kingdom (UK) in order to identify any gaps, alternatives and possible improvements.

1.2 PROBLEM STATEMENT

It has been identified that this is a new area in SA tax legislation because the legislation has not been enacted and no guidelines have been issued by the South African Revenue Service (SARS). A number of countries for example China and the UK have legislation regarding this topic, which this study will proof, is well developed.

Due to this, it was decided to compare the above-mentioned countries' legislation to the SA section 12L legislation. This comparison will identify the gaps, alternatives and possible improvements to the proposed SA section 12L.

The debate will comprise the SA Government's stance on the incentives for taxpayers to incur energy savings capital expenditure, the concomitant tax benefits to the taxpayer, whether the control environment should remain within the ambit of the tax system and the extent of Government's responsibility and intervention.

The discussion will include whether this notional allowance will be in addition to the allowances and deductions based on actual expenditure incurred in the investment of new green technologies.



1.3 PURPOSE STATEMENT

The aim is to suggest how government should improve SA legislation in terms of section 12L of the Act in order to stimulate investment in the conversion of old technology to new "green" technology. The challenges in developing improved energy savings will be addressed in the SA context, when compared to similar legislation in China and the UK.

1.4 RESEARCH OBJECTIVES

The aim is to test the typology of the sources of energy efficiency savings allowances as proposed in the Taxation Laws Amendment Act, 2009 in a SA context and to compare the sources to those of other countries whose legislation is far developed.

The research objectives are set out below:

- To critically evaluate each of the current proposed provisions of section 12L of the Act to determine whether it would be economically viable for taxpayers to invest in new energy saving technologies.
- To evaluate whether the notional allowance of section 12L will be in addition to current tax allowances and deductions, based on actual expenditure incurred in the investment in new green technologies.
- To compare the SA proposed legislation on energy efficiency allowances in terms of section 12L to legislation in China and the UK.

In the first objective, the units of analysis are the proposed provisions of section 12L. In the second objective, the unit of analysis is the interrelation between the proposed section 12L and the other relevant sections of the Act. The units of analysis of the third objective are the legislation of SA and other countries related to energy efficiency savings allowances. The researcher wishes to draw conclusions about differences between the countries' legislation related to energy efficiency savings allowances.



1.5 IMPORTANCE AND BENEFITS OF THE PROPOSED STUDY

From a theoretical perspective, the researcher aims to make two valuable contributions to the extant body of knowledge on the few existing sources of energy efficiency allowances: Firstly, as far as could be determined, this will be one of the first studies on energy efficiency allowances in a developing economy and, in particular, in SA. This is due to the status of the topic in our legislation. Secondly, the study will make a unique contribution by identifying and investigating differences in the proposed SA section 12L compared to similar legislation in China and the UK.

From a practical perspective, the findings should assist taxpayers to be aware of the possible proposed benefits available to them if they invest in new, green technologies, Also, whether this notional allowance will be in addition to allowances and deductions based on actual expenditure incurred in the investment of new clean technologies.

1.6 DELIMITATIONS

There are several delimitations relating to the context, constructs and theoretical perspectives of this study. Firstly, it will be limited to the context of proposed SA legislation with no guidance being issued by SARS. Since this legislation has not been enacted, there is no SA reported case law to study. Therefore the practical application of the law will not be considered. Some of the practical uncertainties that could exist are discussed in the literature review. Where SA capital allowances are discussed, section 12E of the Act will not be considered because it is specific to small business corporations as defined in section 12E of the Act.

Finally, the focus in this study will be on the SA proposed section 12L and then it will be compared to well developed international legislation relating to this topic. This will lead to an identification of the possible differences, advantages, shortcomings and limitations in the SA proposed section 12L when compared to international legislation.



1.7 ASSUMPTIONS

An assumption is "a condition that is taken for granted, without which the research project would be pointless" (Leedy & Ormrod, 2005:5). There are some basic assumptions underlying the proposed research study. It is assumed that:

- 1. the proposed section 12L will be enacted; and
- 2. a pure literature review is an appropriate means of investigating this topic.

1.8 DEFINITION OF KEY TERMS

This study involves a number of key concepts, namely allowance, deductions, efficiency, energy, feed-in tariff, green, installation, kilowatt hour, notional, photovoltaic, rent-a-room relief, savings and year of assessment. These key terms are defined for the purpose of this study and are considered below.

Allowance: Allowance in the context of accounting is defined by BusinessDictionary.com (2010:1) as "a tax-free amount subtracted from income to arrive at taxable income" (see paragraphs 2.1 - 2.4, 2.6, 3.1 - 3.6, 4.1 - 4.3 and 5.3).

Deductions: BusinessDictionary.com (2010:1) defines deductions in the context of accounting as "business expenses or losses which are legally permitted to be subtracted from the gross revenue of a firm in computing its taxable income" (see paragraphs 2.1 - 2.4, 2.6, 3.1 - 3.5, 4.2 and 5.2.1).

Efficiency: Efficiency is defined as "the comparison of what is actually produced or performed with what can be achieved with the same consumption of resources (for example money, time and labour). It is an important factor in the determination of productivity" (BusinessDictionary.com, 2010:1) (see paragraphs 2.1 - 2.3, 2.5, 3.1 - 3.7, 4.1 - 4.3, 5.1 and 5.3).

Energy: BusinessDictionary.com (2010:1) defines energy as "the measure of the ability of a body or system to do work or produce a change, expressed usually in joules or kilowatt hours (kWh)" (see paragraphs 2.1, 2.2, 2.5, 2.6, 3.1 - 3.7, 4.1 - 4.3 and 5.1 - 5.3).



Feed-in tariff: Is defined by Earthscan (2011:1) as "a renewable energy law that obliges energy suppliers to buy electricity produced from renewable resources at a fixed price, usually over a fixed period - even from householders. These legal guarantees ensure investment security and the support of all viable renewable energy technologies" (see paragraphs 2.2 and 5.1).

Green: BusinessDictionary.com (2010:1) defines energy as "having positive environmental attributes or objectives" (see paragraphs 2.2, 2.4, 2.6, 3.2 and 3.6).

Installation: The HMRC Notice 708/6 (2006:4), defines installation, in this context as "putting in place energy-saving materials" and that installation "involves some process by which materials are permanently fixed in place although loft insulation may simply need to be unrolled and positioned in place to be installed" (see paragraphs 3.5, 3.6, 4.2 and 5.2.3).

Kilowatt Hour: Whatis.com (2008:1) defines a kilowatt hour (kWh) "as a unit of energy equivalent to one kilowatt (1 kW) of power expended for one hour of time. The kilowatt hour is not a standard unit in any formal system, but it is commonly used in electrical applications" (see paragraphs 2.2 and 4.2).

Notional: In its ordinary meaning 'notional' means "not real or actual" per Dictionary.com (2011:1) and 'notional' as per the Oxford dictionary (2011:1) means: "existing as or based on a suggestion, estimate, or theory; not existing in reality" (see paragraphs 2.4 - 2.4, 2.6, 3.4 and 4.2).

Photovoltaic: Photovoltaic is defined by Clean Energy Ideas (2009:1) as: "Photovoltaic refers to a technology which uses a device (usually a solar panel) to produce free electrons when exposed to light, resulting in the production of an electric current" (see paragraph 5.2.3).

Rent-a-room relief: Citizens Information (2011:1) explains rent-a-room relief as "if you rent out a room (or rooms) in your home to private tenants, the rental income you earn will



be exempt from income tax, provided this income does not exceed £10,000 in a tax year" (see paragraph 3.4).

Savings: Savings is defined by Dictionary.com (2011:1) as "the portion of ...income not spent..." (see paragraphs 2.1 – 2.2, 2.5 – 2.6, 3.1, 3.2, 3.4, 3.6, 4.1, 4.2, 5.1, 5.2.1, 5.2.3 and 5.3).

Year of assessment: A year of assessment is defined in terms of section 1 of the Act as "any year or other period in respect of which any tax or duty leviable under this Act is chargeable, and any reference in this Act to any year of assessment ending on the last or twenty-eighth or the twenty-ninth day of February shall, unless the context otherwise indicates, in the case of a company or portfolio of a collective investment scheme in securities be construed as a reference to any financial year of that company or portfolio ending during the calendar year in question" (see paragraphs 2.2 and 4.2).

1.9 ABBREVIATIONS USED

The following are recognised abbreviations used in the body text of this mini dissertation:

Abbreviation	Meaning
AMT:	Automatic Monitoring and Targeting
BT:	Business Tax
CHP:	Combined Heat and Power
CHPQA:	Combined Heat and Power Quality Assurance
CNY:	Chinese Yuan
CTA:	Corporation Tax Act
DEFRA:	UK Department of Environment Food and Rural Affairs
ECA:	Enhanced Capital Allowance
EIT:	Enterprise Income Tax
EMC:	Energy Management Contracting
EPC:	Energy Performance Certificates
ERDF:	European Regional Development Fund
ESCOM:	Energy Supply Commission
ESCOS:	Energy Service Companies
ETL:	Energy Technology List

 Table 1:
 List of abbreviations used in this document



Abbreviation	Meaning
FIT:	Feed-in Tariffs
HEES:	Home Energy Efficiency Scheme
HMRC:	Her Majesty's Revenue and Customs
HVAC:	Heating, ventilation and air conditioning equipment
ITTOIA:	Income Tax Trading and Other Income Act
JSE:	Johannesburg Stock Exchange
kW:	Kilowatt
kWh:	Kilowatt Hour
LESA:	Landlord's Energy Savings Allowance
MW:	Megawatt
PV:	Photovoltaic(s)
SA:	South Africa(n)
SARS:	South African Revenue Service
SI:	Statutory Instrument
UAE:	United Arab Emirates
UK:	United Kingdom
US:	United States
USA:	United States of America
VAT:	Value Added Tax
WWW:	World Wide Web



1.10 RESEARCH DESIGN AND METHODS

This mini dissertation is a non-empirical study based on a review of existing literature. The SA legislation regarding this topic is currently not enacted. Due to this and the limited number of resources in SA, the author decided to perform an international comparison to similar legislation in counties where this topic is far developed. This will highlight the differences, benefits and limitations in our proposed legislation. Firstly, the proposed SA legislation is discussed in this mini dissertation. Secondly, the interrelation to the other relevant provisions of the Act is discussed. Then the UK legislation relating to this topic is listed and critically evaluated. A detailed head-to-head comparison between the SA proposed legislation and similar legislation in the UK is made in order to highlight the differences, benefits and limitations in our proposed legislation. China makes large investments in renewable energy and because of this the related tax incentives available in China are evaluated. Lastly, the findings are summarised into a conclusion and the value of this study is discussed.

1.11 OVERVIEW OF CHAPTERS

In Chapter 1 the introduction, context setting and research objectives of this mini dissertation are provided. Chapter 2 comprises a detailed evaluation of the SA proposed section 12L and how this interrelates with the general deduction formula and capital allowance sections of the Act. The SA Value Added Tax (VAT) incentives relating to energy efficiency are also discussed in Chapter 2. In Chapter 3 a detailed exploration of the many forms (including VAT) of UK energy efficient tax legislation is undertaken. In Chapter 4 the requirements of the SA proposed section12L are compared with the types and requirements of the tax incentives available to UK taxpayers in order to identify any differences. In Chapter 5 the tax benefits relating to energy savings in China are discussed. Lastly, a summary and conclusion based on the research performed are provided in chapter 6.



CHAPTER 2 A DETAILED EVALUATION OF THE PROPOSED SA ENERGY EFFICIENCY SAVINGS ALLOWANCE

2.1 INTRODUCTION

In order to meet the objectives set in Chapter 1, a detailed analysis of the SA proposed energy efficiency savings allowance needs to be performed. This will give a clear understanding of the mechanics of this proposed section and will emphasise the requirements to qualify for the deduction of this allowance from taxable income. It is important to understand how this allowance will interrelate with the general deduction formula and other capital allowances within the Act. From a practical perspective, VAT should always be considered by VAT vendors and therefore the VAT incentives to SA VAT vendors who incur energy savings are discussed.

The following table lists the concepts discussed and which are related to the proposed SA section 12L:

Paragraph number	Paragraph description
2.1	Introduction
2.2	SA proposed section 12L
2.3	The general deduction formula
2.4	Capital allowances in SA
2.5	SA VAT and the proposed SA section 12L
2.6	Conclusion

Table 2: Concepts discussed in Chapter 2

2.2 PROPOSED SA SECTION 12L

Before discussing the proposed SA section 12L, it is important to critically evaluate and understand the legislation.



In the following table the provisions of the proposed section 12L in terms of the Taxation Laws Amendment Act No 17 of 2009 are listed and compared to the changes listed in the Taxation Laws Amendment Act No 7 of 2010:

Table 3:	Comparison of section 12L in terms of the Taxation Laws Amendment Acts, No 17 of	
	2009 and No 7 of 2010	

The Taxation Laws Amendment Act, No 17 of 2009	The Taxation Laws Amendment Act, No 7 of 2010
Insertion of section 12L in Act 58 of 1962: 27. (1) The Income Tax Act, 1962, is hereby amended by the insertion of the following section: 'Allowance for energy efficiency savings'	Amendment of section 12L of Act 58 of 1962, as inserted by section 27 of Act 17 of 2009.
 (1) For the purposes of this section— 'energy efficiency savings certificate' means a certificate issued by an institution, board or body determined by the Regulations, reflecting— 	(1) Section 12L of the Income Tax Act, 1962, is hereby amended—
(a) the baseline at the beginning of the year of assessment, with the criteria and methodology determined in accordance with the Regulations;	 (a) by the substitution in subsection (1) for paragraph (b) of the definition of "energy efficiency savings certificate" of the following paragraph:
(b) the baseline at the end of the year of assessment, with the criteria and methodology determined in accordance with the Regulations;	(b) the [baseline] reporting period energy use at the end of the year of assessment, with the criteria and methodology determined in accordance with the Regulations;
(c) the annual energy efficiency savings expressed in kilowatt hours or kilowatt hours equivalent for the year of assessment including the full criteria and methodology used to calculate the energy efficiency savings determined in accordance with the Regulations; and	
(d) any other information that may be required by the institution, board or body determined by the Regulations in the form and manner and at the time and place that that institution, board or body may require;	
'Regulations' means the Regulations issued by the Minister of Energy in terms of the National Energy Act, 2008 (Act No. 34 of 2008), after consultation with the Minister of Finance and the Minister of Trade and Industry.	
(2) In determining the taxable income derived by any person in any year of assessment ending before 1 January 2020 from carrying on	



The Taxation Laws Amendment Act, No 17 of 2009	The Taxation Laws Amendment Act, No 7 of 2010
any trade, there must be allowed as a deduction from the income of that person so derived an allowance as determined in accordance with the formula in subsection (3).	
(3) The amount of the allowance contemplated in subsection (1) must be determined in accordance with the formula—	 (b) by the substitution in subsection (3) for the words preceding paragraph (a) of the following words: The amount of the allowance contemplated in subsection [(1)] (2) must be determined in accordance with the formula—
$A = \frac{B \times C}{D}$	$A = \frac{B \times C}{D}$
in which formula—	in which formula—
(a) 'A' represents the amount to be determined;	
(b) 'B' represents the energy efficiency savings expressed in kilowatt hours or kilowatt hours equivalent for the year of assessment of the taxpayer as contemplated in paragraph (c) of the definition of energy efficiency savings certificate in section 1;	 (c) by the substitution in subsection (3) for paragraph (b) of the following paragraph: (b) 'B' represents the energy efficiency savings expressed in kilowatt hours or kilowatt hours equivalent for the year of assessment of the taxpayer as contemplated in paragraph (c) of the definition of energy efficiency savings certificate in [section 1] subsection (1);
(c) 'C' represents the applied rate as the lowest feed-in-tariff expressed in rand per kilowatt hour in effect at the beginning of the year of assessment as determined in terms of the Regulatory Guidelines of the National Energy Regulator of South Africa issued in terms of sections 4(a)(ii) and 47(1) of the National Energy Regulator Act, 2004 (Act No. 40 of 2004).	
(d) 'D' represents the number two, unless a different number has been announced by the Minister in the Gazette in which case 'D' represents that number.	
(4) A deduction must not be allowed in terms of this section if the person contemplated in subsection (2) receives any concurrent benefit as prescribed in the Regulations.	
(2) Subsection (1) comes into operation on a date determined by the Minister of Finance by notice in the Gazette.	(2) Subsection (1) comes into operation on the date on which section 27(1) of the Taxation Laws Amendment Act, 2009, comes into operation.

In terms of the above, the provisions are explained and critically evaluated as follows:



An energy efficiency savings certificate will be required as supporting documentation (a key pre-requisite) to qualify for the deduction of the notional allowance in terms of Section 12L(1) of the Act.

This certificate should reflect:

- (a) A kilowatt hours (kWh) or equivalent measure baseline reading at the beginning of the year of assessment
- (b) The reporting period energy usage expressed in kilowatt hours or equivalent measure at the end of the year of assessment
- (c) A kilowatt hours or equivalent measure reading of the annual energy efficiency savings for the year of assessment. This reading could be interpreted as follows:
 - (i) According to Edward Nathan Sonnenbergs (2011:1), the energy use of a consumer will be measured before the implementation of the energy efficient and new "green" technologies and again after the implementation. These two measurements will then be compared to determine the energy efficient savings achieved for that year of assessment.
 - (ii) It is proposed that this notional allowance will be available for all forms of energy savings, made in the production of income.
 - (iii) Uncertainty still exists regarding whether:
 - the savings should be made due to investment in new "green" technologies as opposed to merely saving energy due to decreased usage and designing more efficient processes,
 - how the base will be calculated if a taxpayer implemented a substantial amount of energy savings before this section is promulgated,
 - how investment in new "green" technologies made during a year of assessment will affect the measurements reflected on the energy efficiency savings certificate, and
 - how broken periods within a year of assessment such as those due to strikes, will influence the energy efficient savings reading.
 - (iv) The Explanatory Memorandum on the Taxation Laws Amendment Act, 2009 provides that all forms of energy efficiency savings will be taken into account.
 All these forms of energy efficiency savings will be expressed in kilowatt



hours equivalent in order to achieve uniformity. This energy efficiency saving is determined by measuring energy use against an initial baseline, as set by a measurement and verification professional.

- (d) The criteria and methodology used to determine (a) (c) should also be reflected on this certificate. The Explanatory Memorandum on the Taxation Laws Amendment Act, 2009 provides that all the criteria and methodology used to determine the baseline, reporting period energy use and energy efficiency savings must be in terms of regulations issued by the Minister of Energy after consultation with the Minister of Finance and the Minister of Trade and Industry. In terms of SILKE (2011:8.43), these regulations will be based on the International Performance Measurement and Verification Protocol of the Efficiency Valuation Organisation.
- (e) Any other information, in the form and manner, as required by an Institution, Board or Body determined by the Regulations. This Institution, Board or Body is expected to be an accredited measurement and verification professional as determined by the Regulations. It is expected that this professional will use standardised methodology.

According to SILKE (2011:8.43), the energy efficiency savings certificate and the information contained on the certificate must be issued and authenticated by an institution, board or body (being an accredited measurement and verification professional), according to Edward Nathan Sonnenbergs (2011:1) as determined by the Regulations.

In terms of subsection (2) of section 12L:

- (a) A deduction of a notional allowance will be allowed, in any year of assessment ending before 1 January 2020, from the income of any person, in the determination of the taxable income of that person.
- (b) That person will have to be carrying on a trade as defined in terms of section 1 of the Act to qualify for the deduction of this allowance.
 - (i) In terms of section 1 of the Act, the term "trade" includes "every profession, trade, business, employment, calling, occupation or venture, including the letting of any property and the use of or the grant of permission to use any patent as defined in the Patents Act. 1978 (Act 57 of 1978), or any design as



defined in the Designs Act, 1993 (Act 195 of 1993), or any trade mark as defined in the Trade Marks Act, 1993 (Act 194 of 1993), or any copyright as defined in the Copyright Act, 1978 (Act 98 of 1978), or any other property of a similar nature."

- (ii) In Burgess v Commissioner for Inland Revenue (685/91) [1993] ZASCA 88; 1993 (4) SA 161 (AD); [1993] 2 All SA 496 (A) (2 June 1993), the principle that this term should be given a wider interpretation than the definition was described as being well established. It was also noted that the definition is not necessarily exhaustive.
- (iii) Whether a taxpayer will be carrying on a trade or not, will have to be determined based on the facts of each case, since this is a question of law and due to the wide meaning of the term "trade". The term "trade" does however not include all activities that may produce income, such activities producing passive income including interest, dividends, annuities and pensions.
- (c) It is clear that both natural and non-natural persons as defined in the Act, could qualify for the deduction of this allowance, provided that they will be carrying on a trade. This should stimulate a wider or larger investment base in new "green" technologies.

In terms of subsection (3) of section 12L:

The amount of the notional allowance that will be allowed as a deduction in each year of incremental savings will be determined in terms of the following formula:

 $A = \underline{B \times C}$ Dwhere—

"A" is the amount of the notional allowance which will be allowed as a deduction from income.

"B" represents the kilowatt hours or equivalent measure of energy efficiency savings as contemplated in paragraph (c) of subsection (1) of section 12L, as discussed above.



"C" represents the applied rate. The Explanatory Memorandum on the Taxation Laws Amendment Act, 2009 explains that for purposes of the formula, the applied rate is the lowest feed-in-tariff rate at the beginning of the year of assessment expressed in rands per kWh determined in terms of Regulatory Guidelines set by the National Energy Regulator. In terms of the Regulatory Guidelines of the National Energy Regulator of South Africa (2009:9), Feed-in Tariffs (FIT) are, "in essence, guaranteed prices for electricity supply rather than conventional consumer tariffs. The basic economic principle underpinning the FIT's is the establishment of a tariff (price) that covers the cost of generation plus a 'reasonable profit' to induce developers to invest. This is quite similar to the concept of cost recovery used in utility rate regulation based on the costs of capital."

"D" represents the factor 2. The Explanatory Memorandum on the Taxation Laws Amendment Act, 2009 explains that given that the lowest feed-in tariff rate is higher than the current rate per kWh for electricity generated from fossil fuel, the overall formula is divided by 2. According to section 12L(3)(d), the Minister may change this denominator. It would theoretically have been possible to use the average actual electricity rate (rand per kWh) for each taxpayer, but this approach would have resulted in unnecessary administrative and differential benefits.

In terms of subsection (4) of section 12L, no deduction will be allowed to a person, if that person receives a concurrent benefit as prescribed in the Regulations. The researcher is of the view that it is uncertain what these concurrent benefits could include.

The above-mentioned criteria and methodology required to be reflected on the energy efficiency savings certificate, are determined in terms of the Regulations issued by the Minister of Energy in terms of the National Energy Act, 2008 (Act No. 34 of 2008), after consultation with the Minister of Finance and the Minister of Trade and Industry. The Regulations mentioned above are stipulated in section 19 of the National Energy Act, 2008 (Act No. 34 of 2008).

Section 12L comes into operation on the date on which section 27(1) of the Taxation Laws Amendment Act, 2009, comes into operation. Since this deduction is allowed only in any



year of assessment ending before 1 January 2020, it is imperative that as soon as section 12L is enacted, taxpayers take full advantage of this tax incentive.

As previously mentioned, the requirements of section 12L would be critically evaluated. In addition to the discussions above, the positive and negative aspects of the section 12L requirements will be highlighted below

Table 4:	Highlighting positive and negative aspects related to section 12L
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Positive aspects related to section 12L	Negative aspects, gaps and shortcomings related to section 12L (reasons are also provided)
 (1) The formula used to calculate the section 12L allowance is easy to understand. It can be summarised as the average of the energy savings multiplied by an applied rate or alternatively stated: (Energy efficiency savings x applied rate) ÷ 2. 	 (1) There appears to be a large administrative burden to qualify for the allowance such as: A key pre-requisite is that an energy efficiency savings certificate needs to be obtained; The requirements to obtain this certificate are discussed previously in this mini-dissertation. Section 12L(1)(d) requires that the certificate reflect "any other information that may be required". This may be onerous and could pose a more administrative burden and difficulty for the taxpayer to qualify for the allowance.
(2) It could provide a neat benefit to taxpayers who make an investment in new green technology because it is an allowance, the first of its kind in SA.	 (2) The following uncertainties were identified: Whether the savings should be made due to investment in new "green" technologies as opposed to merely saving energy due to decreased usage and designing more efficient processes, how the base will be calculated if a taxpayer implemented a substantial amount of energy savings before this section is promulgated, how investment in new "green" technologies made during a year of assessment will affect the measurements reflected on the energy efficiency savings certificate, and how broken periods within a year of assessment such as those due to strikes, will influence the energy efficient savings reading.



Positive aspects related to section 12L	Negative aspects, gaps and shortcomings related to section 12L (reasons are also provided)
(3) It could free up cash flows due to savings in electricity charges levied and save tax due to the investment in new "green" energy saving technologies.	(3) In terms of section 12L(2), the deadline to qualify for this allowance is set at 1 January 2020, but section 12L is currently not enacted yet and therefore reducing the window period to qualify. In addition, there are still the abovementioned uncertainties which should be resolved before section 12L is enacted.
(4) The formula makes sense as it is directly related to the energy savings incurred in a particular year of assessment.	(4) It is also uncertain how the "Regulations" (meaning the Regulations issued by the Minister of Energy in terms of the National Energy Act, 2008 (Act No. 34 of 2008), after consultation with the Minister of Finance and the Minister of Trade and Industry) will interact with section 12L.
	(5) This deduction is an incentive only for persons carrying on a trade as defined, thereby limiting the investment in "green" technology only to these taxpayers. In Chapters 3 and 4, one can see that other countries such as the UK and China do generally not have such limitations.
	(6) How will the accredited measurement and verification professional determine if energy savings were in fact in the production of income? This will directly impact the quantity of energy savings and ultimately the allowance.

To correct the gaps in section 12L identified and listed above, the following recommendations are made:

The uncertainties identified in Table 4 should be addressed by National Treasury before

	-
Corresponding number from Table 4	Recommendations
(1)	 National Treasury could consider reducing the administrative burden to qualify for the section 12L allowance by: Allowing a self assessment of the energy savings reading (similar to the logbook required by individual taxpayers in SA should they wish to claim a deduction against a travel allowance). SARS could implement random checks to promote honest declarations.

(2)



Corresponding number from Table 4	Recommendations
	enacting section 12L. This will allow for a smooth implementation of this allowance.
(3)	The deadline or window period to qualify for the allowance in terms of section 12L(2), should either be extended or section 12L should be enacted as soon as possible to allow taxpayers adequate time to benefit from this allowance.
(4)	The extent of interaction and the impact of the "Regulations" (meaning the Regulations issued by the Minister of Energy in terms of the National Energy Act, 2008 (Act No. 34 of 2008), after consultation with the Minister of Finance and the Minister of Trade and Industry) with section 12L, should be clearly set out by National Treasury.
(5)	National Treasury could consider removing the trade requirement from section12L and thereby expanding the net of taxpayers' that could qualify for this allowance. This will also stimulate a wider investment in "green" technology. Chapters 3 and 4, one can see that other countries such as the UK and China do generally not make such limitations.
(6)	The accredited measurement and verification professional should be adequately qualified to determine if energy savings were in fact in the production of income.

Section 12L is therefore a notional allowance expressed as the average of the energy savings multiplied by an applied rate. Therefore, if less energy is used it could lead to a larger allowance in terms of section 12L and in turn result in a reduced tax liability. Therefore, if less energy is used, how does this affect a section 11(a) deduction and more important, how does the section 12L notional allowance and section 11(a) deduction (general deduction formula) interact (see paragraph 2.3)? Then, will the deduction of this notional allowance be in addition to other actual costs incurred (see paragraph 2.3) and the capital allowances receivable on capital investments in energy saving technology (see paragraph 2.4)?



2.3 THE GENERAL DEDUCTION FORMULA

Most deductions are allowed in terms of section 11(a) of the Act. Section 11(a) provides for the deduction of "expenditure and losses actually incurred in the production of income, provided such expenditure and losses are not of a capital nature".

Section 23(g), the so-called negative test, requires that "any monies, claimed as a deduction from income derived from trade, which are not wholly or exclusively laid out or expended for the purposes of trade" will not be allowed as a deduction in the determination of taxable income. In other words, if expenditure incurred is not laid out for the purposes of a trade as defined, then the taxpayer will not be allowed to deduct such expenditure. If expenditure is incurred partly for trade and partly for non-trade purposes, it is possible to apportion the deduction in order to deduct the trade portion of the expenditure. As discussed in paragraph 2.2, the trade requirement is present in the requirements of section 12L allowance in terms of section 12L(2). None of the requirements listed above appear to be problematic in the light of the proposed section 12L, except for the term 'actually incurred'.

Since the proposed section 12L is a notional allowance, thereby implying that it is not something tangible and actually incurred. It is therefore necessary to determine how it will interact with section 11(a)'s requirement for an expense to be actually incurred for it to be allowed as a deduction.

The principle of 'actually incurred' versus 'necessarily incurred' was laid down in the *Port Elizabeth Electric Tramway Company Ltd v Commissioner of Inland Revenue*, 1936 CPD 241, 8 SATC 13: "Watermeyer AJP: [244] The words of the statute are 'actually incurred' not 'necessarily incurred'. The use of the word 'actually' as contrasted with the word 'necessarily' may widen the field of deductable expenditure. For instance, one man may conduct his business inefficiently or extravagantly, actually incurring expenses which another man does not incur, such expenses therefore are not 'necessary' but they are actually incurred and therefore deductable. But expenses 'actually incurred' cannot mean 'actually paid'. So long as the liability to pay them actually has been incurred they may be deductable. For instance, a trader may at the end of the income tax year owe money for



stocks purchased in the course of the year or for services rendered to him. He has not paid such liabilities but they are deductable. ..."

Since the term 'actually incurred' expands the field for deductable expenditure, it would imply that the notional allowance would be allowed as a deduction. This is further supported by the second principle that 'actually incurred' does not mean actually paid. The section 12L allowance will be a notional allowance, which implies that no actual payment, directly related to the purposes of this proposed section will occur.

Based on the facts provided above, it can further be expected that the notional allowance granted in terms of section 12L will be in addition to actual costs incurred such as the cost of electricity usage.

2.4 CAPITAL ALLOWANCES IN SA

Equipment acquired for purposes of new "green" technologies should qualify for capital allowances under either of sections 12B, 12C or section 11(e). This will depend on the nature of the investment and the industry in which the taxpayer operates.

When an amount qualifies for a deduction or allowance under more than one provision of the Act, section 23B of the Act comes into play. To determine a person's taxable income, no amount or allowance may be allowed or taken into account more than once, in terms of section 23B(1). However, in terms of section 23B(2), if one section specifically requires an amount to be deductable under any other section for it to be deductable under such a section, then a particular double deduction would be allowed. When evaluating section 12L compared to the capital allowance sections, it is clear that section 12L is not a capital allowance. By allowing the proposed section 12L allowance as a deduction in addition to the capital allowance the taxpayer might be entitled to, it is clear that no double deduction of allowances will occur.

The criteria of the abovementioned sections will have to be evaluated in each case to determine whether a capital allowance will be allowed. However, if the criteria of these



sections are met, there is no reason why the section 12L notional allowance cannot also be allowed as a deduction in addition to the capital allowance the taxpayer is entitled to.

2.5 SA VAT AND SA PROPOSED SECTION 12L

Based on research performed, it seems that the National Treasury has not proposed any VAT incentives specifically for energy efficiency savings. However, in terms of the provisions of the VAT Act No 89 of 1991 (the VAT Act), input VAT could be claimed on the purchase of energy efficiency goods provided the purchaser is a registered VAT vendor and the rest of the requirements of section 7(1) of the VAT Act are complied with. Please refer to paragraph 3.6 for the VAT incentives available to taxpayers in the UK. In Chapter 4, a comparison between the VAT incentives in SA to those in the UK is made.

2.6 CONCLUSION

In terms of the objectives set in Chapter 1, each of the current proposed provisions of section 12L of the Act were critically evaluated and it was found that it could be economically viable for taxpayers to invest in new energy saving technologies. In addition, it was found that it can be expected that the notional allowance of section 12L will be in addition to current tax allowances and deductions, based on actual expenditure incurred in the investment in new green technologies. To address the third objective listed in Chapter 1, a detailed understanding of the tax incentives available to UK taxpayers needs to be obtained. This is done in Chapter 3.



CHAPTER 3 A DETAILED EVALUATION OF THE UK ENERGY EFFICIENT TAX LEGISLATION

3.1 INTRODUCTION

In Chapter 1 a detailed evaluation of the SA proposed section 12L was made and in order to compare this to tax incentives available to UK taxpayers, a comprehensive understanding of the UK energy efficient tax legislation needs to be obtained. In this chapter most of the UK tax incentives will be discussed in detail in order to obtain a better understanding of the requirements to qualify for these tax incentives.

The following table lists the concepts discussed related to UK energy efficient tax legislation:

Paragraph number	Paragraph description
3.1	Introduction
3.2	Enhanced Capital Allowance (ECA)
3.3	Combined Heat and Power (CHP) Scheme
3.4	Landlord's Energy Savings Allowance (LESA)
3.5	Home Energy Efficiency Scheme (HEES) and other Energy Saving Grants
3.6	VAT incentives available to UK taxpayers
3.7	Chapter conclusion

Table 6: Concepts discussed in Chapter 3

The following tax allowances and deductions are available in the UK. These will be listed and explained below.



3.2 ENHANCED CAPITAL ALLOWANCE (ECA)

According to Business Link (2011:1-5), the ECA provides tax allowances on capital expenditure incurred on energy-saving investments. This encourages businesses to invest in new "green" technology.

A 100 percent first-year allowance is allowed as a deduction from taxable income on qualifying equipment, plant and machinery. The allowance is allowed up to a published claim value, (Business Link, 2011:1). It is important to understand the term "claim value". This is the cost of the equipment on which the ECA will be calculated. It is possible, due to the nature of the energy saving products, that these could be incorporated into other items of equipment. In these cases, only the proportionate amount of the expenditure that would qualify for the ECA should be calculated. The balance of the cost that does not qualify for the ECA, could be claimed at the relevant capital allowances rate, (Business Link, 2011:3).

Business Link (2011:1), states that "ECA's bring forward tax relief, so that you can set it against profits from a period earlier than would otherwise be the case". This could be interpreted as an accelerated allowance that provides a tax benefit in the first year in full, instead of deferring the tax benefit as other capital allowances would. This would definitely be a great incentive for UK taxpayers.

Only new energy saving equipment may qualify for the ECA and therefore used or secondhand goods do not qualify. The new energy saving equipment and its criteria to qualify for the ECA is published in an Energy Technology List (ETL). The qualifying criteria are reviewed annually to ensure that it remains up to date with technological advances, (Business Link, 2011:1).

Some of the advantages of the ECA include a reduced carbon footprint by your business, reduced electricity bills and the saving of large sums of money in the long term. Another direct benefit of the ECA would be the tax savings that would lead to an improved cash flow position and this could enable the investment in more energy saving equipment, (Business Link, 2011:1).



The products covered in the ETL do not include those used within a dwelling let within the UK (those would qualify for the Landlord's Energy Savings Allowance as discussed below) or overseas. However, items purchased for use within common parts could still qualify, (Business Link, 2011:2).

A specific product search can be performed on the ECA Website by entering fields such as the category, manufacturer and product make. As a result you will find energy saving products (which contain the ETL symbol) and non-listed energy saving products listed. The processes to claim these differ and are discussed in more detail below. The categories of technology covered by the ETL are (Business Link, 2011:2):

- air-to-air energy recovery;
- automatic monitoring and targeting (AMT) equipment including component-based and portable systems;
- boiler equipment including hot water and steam boilers, biomass boilers and room heaters, condensing water heaters and flue gas economisers;
- combined heat and power (CHP) equipment;
- compressed air equipment including flow controllers and master controllers;
- heat pumps for space heating including air source, water source and ground source;
- heating, ventilation and air conditioning (HVAC) equipment including HVAC zone controls and close control air conditioning;
- lighting including high-efficiency lighting units, lighting controls and white-light emitting diode units;
- motors and drives including integrated motor drive units, variable speed drives, switched reluctance drives, and single speed and multiple speed motors;
- pipework insulation;
- refrigeration equipment including air-cooled condensing units, cellar cooling equipment, automatic air purgers, and refrigerated display cabinets and fittings;
- solar thermal systems;
- uninterruptible power supplies; and



• radiant and warm air heaters - including overhead radiant heaters, packaged warm air heaters and biomass fire warm air heaters.

The researcher is of the view that this allowance is provided on the payment basis instead of the accrual basis. However, according to Business Link (2011:3), where the energy saving products is paid for in instalments, only the portion of each payment that qualifies for the ECA should be claimed at each stage of the payments made. This should be done by comparing the total cost with the expenditure that will qualify for the ECA. This fraction is applied to each payment to obtain the part of each payment that would qualify for the 100 percent first-year allowance.

Listed energy saving products:

Claiming the ECA can be done in the same manner as other first-year allowances in the UK. It should be declared either on the "income tax self-assessment" or "corporate tax self-assessment" returns. There is a guide available to assist UK resident taxpayers in calculating the capital allowances they are entitled to.

Non-listed energy saving products:

These do not appear on the ETL, but could still meet some criteria to qualify for the ECA. There are four categories of non-listed energy saving products (Business Link, 2011:4):

- component-based automatic monitoring and targeting equipment;
- combined heat and power (CHP) equipment;
- lighting; and
- pipework insulation.

Effectively, in the case of a business paying corporation tax at 28%, a £280 saving will be made for every £1 000 spent on qualifying energy saving products. Generally other capital allowances UK taxpayers are entitled to will result in a saving of £56 for every £1 000 capital expenditure incurred. This is calculated at the 20% reducing balance method. Therefore, the ECA results in a £224 additional saving in year one. It therefore accelerates the capital allowance which will have a favourable effect on a UK taxpayer's taxable income, (Carbon Trust, 2011:1).



Of the above four categories, only the CHP scheme will be discussed in detail since this is the most comparable to the SA section 12L.

3.3 CHP SCHEME

As can be seen from the above, the CHP forms part of the ECA. It is therefore one of the many types of allowances that a qualifying UK tax resident can qualify for using energy efficient products.

A certificate of energy efficiency will have to be obtained to claim an ECA on CHP equipment. This certificate shows what percentage of the total investment qualifies for an ECA. A Combined Heat and Power Quality Assurance (CHPQA) certificate will have to be obtained before one can qualify for a certificate of energy efficiency, (Business Link, 2011:4).

When applying for the CHPQA certificate, the taxpayer must indicate that the certificate will be used to claim an ECA. The CHPQA administrator will then issue the Certificate of Energy Efficiency and then the taxpayer may claim the qualifying part of its investment as an ECA. If the certificate is revoked at a later stage, the allowance claimed by the taxpayer will have to be withdrawn in an amended tax return, (Business Link, 2011:4).

3.4 LANDLORD'S ENERGY SAVINGS ALLOWANCE (LESA)

The SA proposed section 12L(2) requires a trade to be carried on in order to qualify for the deduction of the notional allowance. The definition of trade in terms of the Act includes the letting of any property. However, in the UK, an allowance is available specifically to landlords to improve the energy efficiency of their let residential properties. This is to encourage landlords to incur expenditure on energy efficient items which will lead to improved energy efficiency, (Her Majesty's Revenue and Customs (HMRC), 2011:1). Shelter Scotland (2011:1) mentions the advantages of the LESA, which could include adding value to the landlord's property, improving rental potential and reducing running costs of the dwelling which makes it easier for tenants to budget and giving them a cosier



living environment which might encourage them to stay longer. Holiday lets and resident landlords are not covered by the LESA.

From 2009, Energy Performance Certificates (EPC) became compulsory for all new tenancies if the landlord wants to be eligible to claim the LESA. Changeworks (2007:3), states that "the EPC will rate the relative energy efficiency of the property on an A (Good) to G (Poor) scale, and prospective tenants must be given a copy of this certificate prior to signing any tenancy agreement. The Royal Institute of Chartered Surveyors considers that the introduction of the EPC will eventually impact on property values and rent levels. This effectively means that inefficient properties will become less desirable and more difficult to let, bringing more complaints and repairs, a higher tenant turnover and more and longer untenanted periods. By taking advantage of the LESA in a timely manner, a UK landlord can increase his or her chances of getting a good energy rating on his or her EPC and increase the desirability of his or her rented property."

In addition, Changeworks (2007:2), mentions that "these certificates will rate the relative energy efficiency of a landlord's property and all prospective tenants will have to see this prior to signing any tenancy agreement. The most recent Scottish House Condition Survey shows private rented housing to be the least energy efficient of all UK housing sectors. Many landlords may be reluctant to invest in energy efficiency, as they see no return for themselves and imagine that all the benefits go to the tenants. In fact there are many benefits for landlords, and the LESA is just one of these."

It is clear that this is a transparent process between the landlord and the tenant. What the UK Government is trying to accomplish is that rental properties without an EPC will become less attractive to tenants, resulting in those properties becoming less occupied. The returns on those properties will decrease and as a result the landlord's will have no choice but to ensure their properties become more energy efficient.

The LESA is explained by HMRC (2011:1), and is interpreted as follows:

The cost of acquiring and installing energy saving items are not normally deductible, nor are they eligible for capital allowances in the UK, but under these sections the LESA is



granted to landlords. Only qualifying expenditure on specified energy savings items incurred before 6 April 2015 qualifies for the LESA.

A just and reasonable apportionment of expenditure making up the allowance must be made between all properties which benefit from the energy saving investments. In addition, a capping exists in that a landlord should only claim for the expenditure which benefits the residential property that he or she lets and this is limited to £1 500 per dwelling house, (HMRC, 2011:1).

A landlord could fall within the ambit of income tax or corporate tax, depending on the nature of the landlord. If the landlord is an individual, it will fall within the ambit of income tax and if the landlord is a corporate non-natural person, it will fall within the ambit of corporate tax. In terms of HMRC (2011:1), the LESA is dealt with as part of income tax and corporate tax:

Income Tax:

The legislation for landlords within the charge to income tax is in the Income Tax Trading and Other Income Act (ITTOIA) 2005, sections 312 to 314 and the Energy-Saving Items (Income Tax) Regulations 2007 (Statutory Instrument (S.I.) 2007/3278).

LESA can be claimed in respect of energy-saving items in let residential property, provided the expenditure on these items is incurred on or after the following dates and before 6 April 2015:

Loft insulation	From 6 April 2004
Cavity wall insulation	From 6 April 2004
Solid wall insulation	From 7 April 2005
Draught proofing	From 6 April 2006
Hot water system insulation	From 6 April 2006
Floor insulation	From 6 April 2007

The following capping exists in respect of claiming the LESA (HM Revenue and Customs, 2011:1):



- From 6 April 2004 to 5 April 2007, the maximum allowance was £1 500 per building, per year.
- From 6 April 2007, the maximum allowance is £1 500 per dwelling house, per annum.

This means that where a single building contains two or more dwellings, the LESA is $\pounds 1$ 500 on each dwelling. The allowance is capped in terms of the above provisions irrespective of whether actual expenditure exceeds this capping.

Corporate Tax:

According to Changeworks (2007:2), the UK 2007 budget was extended to also include corporate landlords who let residential properties and are subject to Corporation Tax. For corporate tax the legislation for landlords is in the Corporation Tax Act (CTA) 2009, sections 251, 252 and 253, and the Energy-Saving Items (Corporation Tax) Regulations 2008 (S.I. 2008/1520).

LESA can be claimed on the energy-saving items listed above, provided the expenditure on these items was incurred on or after 8 July 2008 and is incurred before 1 April 2015. The maximum allowance is £1 500 per dwelling house.

The following restrictions exist, where the LESA cannot be claimed (HM Revenue and Customs, 2011:2):

- If the landlord is claiming a rent-a-room relief in respect of the dwelling house;
- If the property business includes the commercial letting of furnished holiday accommodation;
- If the expenditure is incurred in respect of energy saving items in a dwelling house which, at the time when the items are installed:
 - is in the course of construction, or
 - is comprised in land in which the person claiming the deduction under this section does not have an interest or is in the course of acquiring an interest or further interest.
- In respect of pre-trading expenditure, unless the expenditure is incurred in the six months before the rental business started (and after 5 April 2004).



In general, this allowance will be apportioned in the following circumstances (HM Revenue and Customs, 2011:1):

- a building that only partly comprises let residential property;
- a building containing more than one dwelling house; or
- a property that is let by more than one landlord.

It is evident from the above that the legislation and requirements governing the LESA are much the same as those of the SA proposed section 12L. In both countries a certificate of energy efficiencies is needed to qualify for an allowance. However, the calculation behind the LESA appears to be easier to apply when compared to the SA proposed section 12L. This is because of the following reasons:

- In terms of the LESA, the capping allowance is per dwelling or otherwise stated, as the number of dwellings multiplied by a predetermined capped allowance, versus
- the fact that the SA proposed section 12L consists of energy savings achieved, multiplied by a factor, which could be difficult to apply in practice. Even though the formula itself is easy to calculate, it is still not as easy to apply as the LESA calculation as the LESA calculation requires fewer inputs.
- The difficulty to apply section 12L in practice could be due to the various inputs and variables needed to qualify for the allowance:
 - (a) various requirements to be met to obtain the energy efficiency savings certificate;
 - (b) it is uncertain whether the savings should be made due to investment in new "green" technologies as opposed to merely saving energy due to decreased usage and designing more efficient processes;
 - (c) uncertainty exists as to how the base will be calculated if a taxpayer implemented a substantial amount of energy savings before this section is promulgated;
 - (d) it is also unsure how investment in new "green" technologies made during a year of assessment will affect the measurements reflected on the energy efficiency savings certificate;
 - (e) it is uncertain how broken periods within a year of assessment such as those due to strikes, will influence the energy efficient savings reading; and



(f) how will the accredited measurement and verification professional determine if energy savings were in fact in the production of income? This will directly impact the quantity of energy savings and ultimately the allowance.

The following case study illustrates why the LESA is easier to apply in practice than the SA proposed section 12L:

A UK taxpayer spends £2 000 on installing an energy saving product in a building that consists 50% of an administrative office and 50% of a let residential property. A SA taxpayer spends R24 000 on installing an energy saving product in a building that consists 50% of an administrative office and 50% of a let residential property and both are connected to the SA taxpayer's trade. The annual energy efficiency savings incurred by this taxpayer was 100kW. Assume an applied rate of R3 per kW.

Under the LESA, this taxpayer would qualify for £1 000, being one let residential property multiplied by the cost of related to that residential property (£2 000 x 50%), but limited to £1 500 per let dwelling.

In terms of section 12L, the SA taxpayer would qualify for an allowance of: (Energy efficiency savings x applied rate) \div 2 or (100kW x R3) \div 2 = R150

Assuming a currency translation rate of R12 for £1, both taxpayers made the same investment. However, the UK taxpayer qualifies for £1 000 allowance and the SA taxpayer for only R150 in year 1.

The LESA was also easier to apply due to fewer inputs in the equation and the capping that exist per let dwelling. Even though the SA proposed section 12L allowance is not difficult to calculate, there are more inputs to obtain and it is uncertain (in practice) what the applied rate will be and how it will be obtained.



3.5 HOME ENERGY EFFICIENCY SCHEME (HEES) AND OTHER ENERGY SAVING GRANTS

According to HM Revenue and Customs (2011:1), HEES was introduced by the UK Government in January 1991 as part of the 1990 Social Security Act. HEES is a Government-funded scheme aimed to improve the energy efficiency of housing occupied by low-income households. The scheme is run by the UK Department of Environment Food and Rural Affairs (DEFRA) in England, and is one of the UK Government's programmes specifically directed at improving energy efficiency.

Under HEES, the homes of qualifying persons are inspected to establish the potential need for relevant installations to save energy. These installations will be funded by grants. In England, Northern Ireland, Scotland and Wales there are different HEES regulations. However, the differences between these are insignificant. According to UK Energy Saving (2011:1), this scheme has been closed. This occurred during April and May 2011. The HEES has been replaced by similar energy saving grants, (UK Energy Saving, 2011:1):

- Nest which offers free insulation and other energy measures in Wales;
- Energy Assistance Package which is available for free insulation and other energy saving measures in Scotland;
- Warm Front Scheme grants towards energy efficiency measures such as insulation in England; and
- Warm Homes Scheme grants towards energy efficiency measures such as insulation available in Northern Ireland.

Qualifying persons in these countries can apply for these energy saving grants at no cost. Any person can apply telephonically or online and officials employed by these schemes will evaluate whether applicants qualify for grants to cover costs such as "installing loft insulation, cavity wall insulation, draught proofing, electric storage heaters, low energy light bulbs, or smoke alarms", (UK Energy Saving, 2011:1). Successful applicants will also qualify to receive free energy efficiency advice to incur further energy efficiencies in their homes. Successful applicants are likely to include lone parent families, the elderly (over 60 years of age), the financially less privileged and those who are chronically ill or disabled.



The UK funds these grants through "the scope of the European Regional Development Fund (ERDF), which has been extended in order to support energy efficiency interventions in housing throughout Europe. Funding of up to €8 billion or 4% of the total ERDF allocation to the EU Member States can be allocated to co-finance insulation works, installation of solar panels, replacement of substandard boilers in existing housing stock", (Fuel Poverty Strategy, 2010:3). This means that the European Union has set aside funds to its member states in order to fund grants to ensure that energy efficiencies are incurred and achieved in their respective countries.

This is therefore not a tax allowance or deduction, but a grant funded programme introduced by the UK Government. This is another incentive that the SA Government could consider, especially given the levels and number of low-income households in SA.

3.6 VAT INCENTIVES AVAILABLE TO UK TAXPAYERS

VAT incentives and requirements for these benefits are discussed in terms of the HMRC Notice 708/6 (2006:1-12) below.

These incentives apply to contractors or sub-contractors installing energy-saving materials or grant funded heating equipment or security goods. VAT at a reduced rate is available for the installation of the abovementioned items in residential accommodation or a building used solely for a relevant charitable purpose. Irrespective of whether the installation itself is grant funded, the reduced rate of VAT will apply. However, it is specifically required that installation takes place, otherwise the supply will be standard rated. If the installations are done in a new house, VAT is payable at zero-rate, (HMRC Notice 708/6, 2006:3-5).

One might ask, what is regarded as residential accommodation? In terms of HMRC Notice 708/6 (2006:7), the following types of residential accommodation will qualify for a reduced VAT rate for the installation of certain energy-saving products:

- houses, flats or other dwellings;
- armed forces residential accommodation;



- children's homes;
- homes providing care for the elderly, disabled people, or people who suffer or have suffered from drug or alcohol dependency or mental disorder;
- hospices;
- institutions that are the sole or main residence of at least 90% of their residents;
- monasteries, nunneries and similar religious communities;
- school and university residential accommodation for students and pupils;
- self catering holiday accommodation;
- caravans that are sited on permanent residential caravan parks. They must be either longer than 7 metres or wider than 2.3 metres, excluding towing bars and similar apparatus used solely for the purpose of attaching the caravan to a vehicle; and
- houseboats that are designed or adapted for permanent habitation and have no means of self propulsion, or other boats which are used as a person's sole or main residence, such as canal boats and Dutch barges, on which the boat owner pays Council Tax or domestic rates.

Hospitals; prisons or similar institutions; hotels or inns or similar establishments are not included in the ambit of residential accommodation for the purposes of the reduced VAT rates.

According to HMRC Notice 708/6 (2006:5), the energy-saving materials covered by the reduced VAT rate include the installation of:

- central heating and hot water system controls;
- draught stripping;
- insulation;
- solar panels;
- wind turbines;
- water turbines;
- ground source heat pumps;
- air source heat pumps;



- micro combined heat and power units; and
- wood-fuelled boilers.

Research has shown that due to the contractor and sub-contractors being entitled to VAT at these reduced rates, the recipient of the service will also indirectly benefit because the contractor or subcontractor should charge these lower rates on the installation work, materials and equipment.

According to HMRC Notice 708/6 (2006:10), the energy-saving materials not covered by the reduced rate include the installation of:

- energy efficient boilers;
- secondary or double glazing;
- low emission glass;
- energy efficient fridge freezers; and
- materials and equipment that you buy without having them installed.

However, in terms of HMRC Notice 708/6 (2006:8-11), VAT at the reduced rate may be available on the installation of these items if they are grant funded. If a grant is obtained towards the installation of certain energy-saving products in your main or only home, VAT will be paid at the reduced rate. In addition, if a UK resident is 60 years or older, these residents are entitled to the reduced VAT rate on the installation, repair or maintenance of a central heating system, a renewable source heating system and home security goods.

According to HMRC Notice 708/6 (2006:10), a UK resident will also be entitled to VAT at the reduced rate, if that resident is entitled to one of the following benefits in the UK:

- child tax credit other than the family element;
- council tax benefit;
- disability living allowance;
- disablement pension;
- housing benefit;
- income-based job seeker's allowance;



- income support;
- war disablement pension; and
- working tax credit.

The VAT at a reduced rate also applies to grant-funded replacements and repairs even if the original equipment was not grant-funded. The objective of the grant-funded installations is to assist less well off people in the UK to obtain energy efficient products in their homes.

These provisions are covered in the UK VAT Act 1994, section 29A (as inserted by the Finance Act 2001) and Schedule 7A to the UK VAT Act.

Based on the above, it appears that there are many forms of incentivising the investment into new "green" technology in the UK. It seems as if there are more forms of incentives introduced by the UK Government compared to the benefits offered by the SA Government in terms of section 12L and the VAT Act.

3.7 CONCLUSION

A detailed evaluation and understanding of the various tax incentives available to UK tax residents was obtained.

The various tax incentives available to taxpayers in the UK are summarised below:

Tax incentives available in UK	Tax incentive description
Enhanced Capital Allowance (ECA)	A 100 percent first-year allowance is allowed as a deduction from taxable income on qualifying equipment, plant and machinery. The allowance is allowed up to a published claim value.
Combined Heat and Power (CHP) Scheme	A certificate of energy efficiency will have to be obtained to claim an ECA on CHP equipment. This certificate shows what percentage of the total investment qualifies for an ECA. A Combined Heat and Power Quality Assurance



Tax incentives available in UK	Tax incentive description
	(CHPQA) certificate will have to be obtained before one can qualify for a certificate of energy efficiency.
Landlord's Energy Savings Allowance (LESA)	A capping allowance per let residential dwelling. The allowance is capped to £1 500 on each dwelling.
Home Energy Efficiency Scheme (HEES) and other Energy Saving Grants	Under HEES, the homes of qualifying persons are inspected to establish the potential need for relevant installations to save energy. These installations will be funded by grants. In England, Northern Ireland, Scotland and Wales there are different HEES regulations. However, the differences between these are insignificant.
VAT incentives available to UK taxpayers	VAT at reduced or zero-rate available on the purchase of energy saving products. Due to the contractor and sub-contractors being entitled to VAT at these reduced rates, the recipient of the service will also indirectly benefit because the contractor or subcontractor should charge these lower rates on the installation work, materials and equipment.

It was identified that there are many forms of incentives available to UK taxpayers who are willing and able to make an investment in energy efficient products. As a result, a detailed comparison of the SA proposed section 12L and the types and requirements of the various types of UK energy efficient tax legislation can be made. This is done in Chapter 4.



CHAPTER 4 A COMPARISON BETWEEN THE SA PROPOSED ENERGY EFFICIENCY SAVINGS ALLOWANCE AND UK ENERGY EFFICIENT TAX LEGISLATION

4.1 INTRODUCTION

In Chapter 2, a detailed evaluation of the SA proposed energy efficient savings allowance was performed. The different tax incentives available to UK taxpayers and the requirements to qualify for these tax incentives were discussed in detail in Chapter 3. To identify the gaps, alternatives and possible improvements to the proposed SA section 12L, these will be compared with the tax incentives available to UK taxpayers in Chapter 4. The types of incentives specific to each country are compared as well as the requirements to qualify for the allowances specific to each country.

4.2 COMPARISON BETWEEN THE SA PROPOSED ENERGY EFFICIENCY SAVINGS ALLOWANCE AND UK ENERGY EFFICIENT TAX LEGISLATION

Based on the comparison below, it is evident that the types of incentives available to UK taxpayers exceed the number and types of incentives available to taxpayers in SA. The SA energy efficiency savings allowance has not yet been enacted and this increases the demand for the SA Government to finalise and enact this piece of legislation. SA is lagging behind leading countries such as the UK regarding energy efficient tax incentives.

The following table lists the types of SA proposed energy efficient tax legislation and the types of UK energy efficient tax legislation:

SA	UK
Energy efficiency savings allowance	ECA
Capital allowances	CHP Scheme
VAT	LESA
	HEES and other Energy Saving Grants (not tax

Table 8: Comparison of the types of energy efficient tax legislation in SA and UK



SA	UK
	incentives)
	VAT

It is important not only to compare the number and types of energy efficiency savings allowances per country, but also to compare the requirements to qualify for these allowances.

In SA, a taxpayer could qualify for both the energy efficiency savings allowance and a capital allowance under the relevant section of the Act and therefore the UK ECA should be compared to both the proposed SA section 12L and capital allowances in terms of the Act. In the UK, a taxpayer cannot qualify for both the ECA and another relevant capital allowance on the same capital expenditure and therefore the ECA must be considered on its own. Take note that the CHP scheme (as discussed in paragraph 3.3) forms part of the ECA and will therefore be included in this comparison.

In the table below a summary of the requirements of the proposed energy efficiency savings allowance and general capital allowances (either of sections 12B, 12C or section 11(e)) in SA is compared to the requirements of the ECA (and CHP scheme) available to UK taxpayers:

Energy efficiency savings allowance (section 12L) and general capital allowances (sections 12B, 12C or section 11(e))	ECA (and CHP scheme)
Energy efficiency savings certificate as pre- requisite supporting documentation. (section 12L(1) of the Act (58/1962))	The new energy-saving equipment and its criteria are published in an ETL. Non-listed energy saving products do not appear on the ETL, but could still meet some criteria to qualify for the ECA. There are four categories of non-listed energy saving products and one of these is CHP. A certificate of energy efficiency has to be obtained to claim an ECA on CHP equipment. A CHPQA certificate has to be obtained before one can qualify for a certificate of energy efficiency, (Business Link, 2011:4).
This certificate should be issued by an accredited measurement and verification	The qualifying criteria are reviewed annually to ensure that they up to date with technological

Table 9:Comparison of the requirements of the proposed SA section 12L and general capital
allowances in SA to the ECA (and CHP scheme) available to UK taxpayers



Energy efficiency savings allowance (section 12L) and general capital allowances (sections 12B, 12C or section 11(e))	ECA (and CHP scheme)
professional. (section 12L(1) of the Act (58/1962))	advances. The CHPQA administrator will issue the Certificate of Energy Efficiency and then the taxpayer may claim the qualifying part of his or her investment as an ECA, (Business Link, 2011:4).
The energy efficiency savings certificate should reflect — (section 12L(1) of the Act (58/1962))	A certificate of energy efficiency shows what percentage of the total investment qualifies for an ECA, (Business Link, 2011:4).
(a) the baseline at the beginning of the year of assessment, with the criteria and methodology determined in accordance with the Regulations; (section 12L(1)(a) of the Act (58/1962))	A certificate of energy efficiency shows what percentage of the total investment qualifies for an ECA, (Business Link, 2011:4).
(b) the reporting period at the end of the year of assessment, with the criteria and methodology determined in accordance with the Regulations; (section 12L(1)(b) of the Act (58/1962))	A certificate of energy efficiency shows what percentage of the total investment qualifies for an ECA, (Business Link, 2011:4).
(c) the annual energy efficiency savings expressed in kilowatt hours or kilowatt hours equivalent for the year of assessment including the full criteria and methodology used to calculate the energy efficiency savings determined in accordance with the Regulations; and (section 12L(1)(c) of the Act (58/1962))	A certificate of energy efficiency shows what percentage of the total investment qualifies for an ECA, (Business Link, 2011:4).
(d) any other information that may be required by the institution, board or body determined by the Regulations in the form and manner and at the time and place that that institution, board or body may require; (section 12L(1)(d) of the Act (58/1962))	A certificate of energy efficiency shows what percentage of the total investment qualifies for an ECA, (Business Link, 2011:4).
All energy savings should be in the production of income. (section 12L(2) of the Act (58/1962))	When applying for the CHPQA certificate, the taxpayer must indicate that it will be used to claim an ECA, (Business Link, 2011:4).
In determining the taxable income derived by any person in any year of assessment ending before 1 January 2020, a deduction of a notional allowance will be allowed from the income of that person. (section 12L(2) of the Act (58/1962))	The ECA provides for tax allowances on capital expenditure incurred on energy-saving investments, (Business Link, 2011:1).
That person must be carrying on a trade as defined in the Act. (section 12L(2) of the Act (58/1962))	No such requirement, (Business Link, 2011:1- 5).
Both natural and non-natural persons can qualify for the deduction of this allowance. (section 12L(2) of the Act (58/1962))	Both natural and non-natural persons can qualify for the deduction of this allowance, (Business Link, 2011:1-5).



Energy efficiency savings allowance (section 12L) and general capital allowances (sections 12B, 12C or section 11(e))	ECA (and CHP scheme)
The allowance for each year of incremental saving is determined as follows: (Energy efficiency savings x applied rate) ÷ 2	A 100% first-year allowance is allowed as a deduction from taxable income on qualifying equipment, plant and machinery, (Business Link, 2011:1).
(section 12L(3) of the Act (58/1962))	The allowance is allowed up to a published claim value, which is the cost of the equipment on which the ECA will be calculated, (Business Link, 2011:3).
A deduction must not be allowed in terms of this section if the person contemplated in subsection (2) receives any concurrent benefit as prescribed in the Regulations. (section 12L(4) of the Act (58/1962))	The products covered in the ETL which qualify for the ECA, do not include those within a dwelling let within the UK (those would qualify for the LESA). However, those purchased for use within common parts could still qualify, (Business Link, 2011:2).
	If some energy saving products are incorporated into other items of equipment, only a proportionate amount can still qualify for the ECA. The balance of the cost that does not qualify for the ECA, can then be claimed as the relevant capital allowance rate, (Business Link, 2011:3).
The researcher is of the view that there is no such provision in the SA tax legislation.	Business Link (2011:1), states that "ECA's bring forward tax relief, so that you can set it against profits from a period earlier than would otherwise be the case". This could be interpreted as an accelerated allowance that provides a tax benefit in the first year in full, instead of deferring the tax benefit as other capital allowances would. This would definitely be a great incentive for UK taxpayers. If the certificate is revoked at a later stage, then
	the allowance claimed by the taxpayer will have to be withdrawn in an amended tax return, (Business Link, 2011:4).
Neither payment nor accrual basis, but based on incremental energy savings. Capital allowances are mainly on the accrual basis because a taxpayer can commence claiming on the date the asset is brought into use, irrespective whether fully paid or not. (section 12C(1) of the Act (58/1962))	This is allowance is on the payment basis on the cost of qualifying equipment, (Business Link, 2011:3).
Unused equipment is a requirement for sections 12B and 12C, but not for section 11(e). (sections 12B(1), 12C(1), 11(e) of the Act (58/1962))	Only new energy saving equipment qualifies, (Business Link, 2011:1).



Energy efficiency savings allowance (section 12L) and general capital allowances (sections 12B, 12C or section 11(e))	ECA (and CHP scheme)
Used or second-hand goods may qualify for capital allowance in terms of section 11(e), but not for sections 12B or 12C. (sections 12B(1), 12C(1), 11(e) of the Act (58/1962))	Used or second-hand goods do not qualify for the ECA, (Business Link, 2011:1).
Section 12L has not been enacted and comes into operation on the date on which section 27(1) of the Taxation Laws Amendment Act, 2009, comes into operation, (Wilcocks, 2011:258).	This allowance is enacted and is available to UK taxpayers, (Business Link, 2011:1-5).

It is clear from the above comparison that the ECA is easier to apply because it comprises a 100% first year allowance on qualifying energy saving equipment. UK taxpayers merely have to purchase the prescribed energy saving products to qualify. It is also more incentivising because 100% of the cost of this investment is deductable for tax purposes. In SA, only the average of the energy savings multiplied by an applied rate is allowed as a deduction. The requirements to qualify for this allowance also appear to be more onerous than the requirements for the ECA.

UK landlords are also entitled to claim a LESA for let residential property. A UK landlord cannot qualify for both the LESA and the ECA on the same investments in energy saving products and therefore the LESA is also compared to the proposed SA section 12L.

In the table below the requirements of the proposed energy efficiency savings allowance in SA is compared to the requirements of the LESA tax incentive available to UK landlords:

Table 10:	Comparison of the requirements of the SA proposed energy efficiency savings allowance
	and the LESA available to UK landlords

Energy efficiency savings allowance (section 12L)	LESA
Energy efficiency savings certificate as pre- requisite supporting documentation. (section 12L(1) of the Act (58/1962))	Energy Performance Certificates (EPC) compulsory for all new tenancies from 2009, if landlord wants to claim the LESA, (Changeworks, 2007:3).
This certificate should be issued by an accredited measurement and verification professional. (section 12L(1) of the Act	An accredited domestic energy assessor needs to issue the EPC.



Energy efficiency savings allowance (section 12L)	LESA
(58/1962))	
The energy efficiency savings certificate should reflect — (section 12L(1) of the Act (58/1962))	The EPC should —
(a) the baseline at the beginning of the year of assessment, with the criteria and methodology determined in accordance with the Regulations; (section 12L(1)(a) of the Act (58/1962))	(a) rate the relative energy efficiency of the property on an A (Good) to G (Poor) scale, (Changeworks, 2007:3).
(b) the reporting period at the end of the year of assessment, with the criteria and methodology determined in accordance with the Regulations; (section 12L(1)(b) of the Act (58/1962))	(b) be provided to prospective tenants prior to signing any tenancy agreement, resulting in a more transparent process between landlords and their tenants, (Changeworks, 2007:3).
(c) the annual energy efficiency savings expressed in kilowatt hours or kilowatt hours equivalent for the year of assessment including the full criteria and methodology used to calculate the energy efficiency savings determined in accordance with the Regulations; and (section 12L(1)(c) of the Act (58/1962))	The EPC rates the relative energy efficiency of the property on an A (Good) to G (Poor) scale. These certificates rate the relative energy efficiency of a landlord's property and all prospective tenants will have to see this prior to signing any tenancy agreement, resulting in a more transparent process between landlords and their tenants, (Changeworks, 2007:3).
(d) any other information that may be required by the institution, board or body determined by the Regulations in the form and manner and at the time and place that that institution, board or body may require; (section 12L(1)(d) of the Act (58/1962))	The EPC rates the relative energy efficiency of the property on an A (Good) to G (Poor) scale. These certificates rate the relative energy efficiency of a landlord's property and all prospective tenants will have to see this prior to signing any tenancy agreement, resulting in a more transparent process between landlords and their tenants, (Changeworks, 2007:3).
All energy savings should be in the production of income. (section 12L(2) of the Act (58/1962))	This allowance is specifically available to landlords to improve the energy efficiency of their let residential properties. It is therefore in the production of rental income by landlords, (HMRC, 2011:1).
In determining the taxable income derived by any person in any year of assessment ending before 1 January 2020, a deduction of a notional allowance will be allowed from the income of that person. (section 12L(2) of the Act (58/1962))	Income Tax: LESA can be claimed in respect of energy- saving items in let residential property, provided the expenditure on these items was incurred on or after the following dates and before 6 April 2015, (HMRC, 2011:1):
	Loft insulationFrom 6 April 2004Cavity wall insulationFrom 6 April 2004Solid wall insulationFrom 7 April 2005Draught proofingFrom 6 April 2006Hot water system insulationFrom 6 April 2006Floor insulationFrom 6 April 2007



Energy efficiency savings allowance (section 12L)	LESA
	Corporate Tax: LESA can be claimed on energy-saving items provided the expenditure on these items was incurred on or after 8 July 2008 and before 1 April 2015, (HMRC, 2011:1).
That person must be carrying on a trade as defined in the Act. The definition of trade in terms of the Act includes the letting of any property. (section 12L(2) of the Act (58/1962))	LESA is available specifically to landlords to improve the energy efficiency of their let residential property, (HMRC, 2011:1).
Both natural and non-natural persons can qualify for the deduction of this allowance. (section 12L(2) of the Act (58/1962))	A landlord can fall within the ambit of income tax or corporate tax, depending of the nature of the landlord. If the landlord is an individual, he or she will fall within the ambit of income tax and if the landlord is a corporate non-natural person, it will fall within the ambit of corporate tax, (HMRC, 2011:1).
The allowance for each year of incremental saving is determined as follows: (Energy efficiency savings x applied rate) ÷ 2 (section 12L(3) of the Act (58/1962))	A just and reasonable apportionment of expenditure making up the allowance must be made between all properties which benefit from the energy saving investments. A capping exists in that landlords should only claim for the expenditure which benefits the residential property that they let and this is limited to £1 500 per dwelling house, (HMRC, 2011:1).
A deduction must not be allowed in terms of this section if the person contemplated in subsection (2) receives any concurrent benefit as prescribed in the Regulations. (section 12L(4) of the Act (58/1962))	The cost of acquiring and installing energy saving items are not normally deductible, nor are they eligible for capital allowances in the UK, but under the sections listed under Income Tax and Corporate Tax, the LESA is granted to landlords, (HMRC, 2011:1).
Neither payment nor accrual basis, but based on incremental energy savings. (section 12L(3) of the Act (58/1962))	LESA can be claimed in respect of energy saving items limited to a maximum of £1 500 per dwelling house. This appears to be on the payment basis, (HMRC, 2011:1).
Section 12L has not been enacted and comes into operation on the date on which section 27(1) of the Taxation Laws Amendment Act, 2009, comes into operation, (Wilcocks, 2011:258).	This allowance is enacted and is available to UK taxpayers, (HMRC, 2011:1-2).

In both countries a certificate of energy efficiencies is needed to qualify for an allowance. It is also clear from the above that the legislation and requirements governing the LESA are much the same as those of the SA proposed section 12L. The capping allowance is per dwelling in terms of the LESA, compared to the fact that the SA proposed section 12L consists of energy savings achieved, multiplied by a factor, which could be difficult to apply



in practice. This makes the calculation behind the LESA easier to apply when compared to the proposed SA section 12L.

It is important to compare the VAT incentives available in SA to those in the UK, because VAT implications should always be considered by all persons (natural and non-natural) who are registered VAT vendors. For VAT vendors, there could be VAT implications on each energy-saving transaction entered into.

In the table below the VAT incentives related to the SA energy efficiency savings allowance are compared to the VAT incentives and its requirements available to UK VAT vendors and the ultimate recipients of these services:

Table 11:	Comparison of the VAT incentives availab	le to the SA and UK taxpayers who incur
	energy efficiencies	

VAT incentives available to SA taxpayers	VAT incentives available to UK taxpayers
Input VAT can be claimed on the purchase of energy efficiency goods provided the purchaser is a registered VAT vendor and that it is supplied in the course or furtherance of any enterprise carried on by the vendor, (section 7(1)(a) and section 17 of the Act (89/1991)).	VAT at a reduced rate is available for the installation of energy-saving materials, grant funded heating equipment or security goods in residential accommodation or buildings used solely for a relevant charitable purpose, (HMRC Notice 708/6, 2006:3).
Input VAT can be claimed on the installation costs of energy efficiency goods provided the purchaser is a registered VAT vendor and that it is supplied in the course or furtherance of any enterprise carried on by the vendor, (section 7(1)(a) and section 17 of the Act (89/1991)).	Irrespective of whether the installation itself is grant funded, VAT at the reduced rate will apply, (HMRC Notice 708/6, 2006:4).
The researcher is of the view that SA has no specific energy-saving VAT incentives or provisions.	Installation is a specific requirement, otherwise the supply will be standard rated, (HMRC Notice 708/6, 2006:4).
The researcher is of the view that SA has no specific energy-saving VAT incentives or provisions.	VAT is payable at zero-rate if installations are done in a new house, (HMRC Notice 708/6, 2006:5).
The researcher is of the view that SA has no specific energy-saving VAT incentives or provisions.	 These VAT incentives apply to: (a) contractors, (b) sub-contractors, and (c) recipients of the service (due to the contractors and sub-contractors being entitled to reduced VAT rates and they will in turn charge VAT at lower rates for the installation work, maintenance and equipment), (HMRC



VAT incentives available to SA taxpayers	VAT incentives available to UK taxpayers
	Notice 708/6, 2006:3).
The researcher is of the view that SA has no specific energy-saving VAT incentives or provisions.	According to HMRC Notice 708/6 (2006:10) a UK resident will also be entitled to VAT at the reduced rate even if that resident is entitled to other benefits in the UK such as:
	 child tax credit – other than the family element;
	council tax benefit;
	disability living allowance;
	disablement pension;
	 housing benefit;
	 income-based job seeker's allowance;
	income support;
	 war disablement pension; and
	working tax credit.
The researcher is of the view that SA has no specific energy-saving VAT incentives or provisions.	UK residents older than 60 years are entitled to the reduced VAT rate on the installation, repair or maintenance of a central heating system, a renewable source heating system and home security goods, (HMRC Notice 708/6, 2006:10).
The researcher is of the view that SA has no specific energy-saving VAT incentives or provisions.	If a grant is obtained towards the installation of certain energy-saving products in your main or only home, VAT at the reduced rate will apply, (HMRC Notice 708/6, 2006:10).
The researcher is of the view that SA has no specific energy-saving VAT incentives or provisions.	Even if the original equipment was not grant funded, VAT at the reduced rate also applies to grant funded replacements and repairs, (HMRC Notice 708/6, 2006:8).
The researcher is of the view that SA has no specific energy-saving VAT incentives or provisions.	Only the installation of certain energy-saving materials is covered by the reduced VAT rate. Refer to paragraph 3.6 for a listing of energy-saving materials covered by the reduced VAT rate, (HMRC Notice 708/6, 2006:5).
The researcher is of the view that SA has no specific energy-saving VAT incentives or provisions.	The installation of certain energy-saving items does not qualify for VAT at the reduced rate. Refer to paragraph 3.6 for a listing of energy- saving materials not covered by the reduced VAT rate. VAT at a reduced rate is however available for the installation of these items if grant funded, (HMRC Notice 708/6, 2006:10).
Only vendors registered for VAT in SA will receive an input VAT deduction. The end- users who are not registered for VAT, will not receive a direct or indirect benefit, (section 7(1)(a) and section 17 of the Act (89/1991)).	Research has shown that the end-user who is not registered for VAT also receives an incentive for making an investment in energy efficient products.



It is clear from the above that in SA, only registered VAT vendors can potentially benefit from claiming an input VAT deduction from the purchase and installation of energy-saving products. The ultimate recipients of services in SA (who are not registered VAT vendors) will not benefit at all because output VAT will still have to be charged by vendors. In the UK, VAT at a reduced rate and in certain circumstances even at a zero rate is available to UK VAT vendors. In addition to this, because the contractor or sub-contractor can charge these lower or zero rates of VAT, the recipients of these services can also benefit. The UK's VAT incentives related to energy efficiency are further developed than those in SA and therefore, especially from a VAT incentive perspective, the SA government should consider using VAT as a mechanism to entice investment in energy-saving products. In SA, the same VAT incentives could be considered, not only for the purchase of energy saving items, but also for energy savings incurred. For energy savings incurred, VAT rebates similar to the existing "diesel" VAT rebates is an option.

For the purposes of this study it is recommended that grants similar to the HEES and other Energy Saving Grants, as available in the UK, should be considered as a means to achieve energy efficiencies in SA. SA will not qualify for funding from the European Union like the UK does. However, there are other means by which the SA Government can raise funds in order to provide grants to SA residents to incur energy efficiencies. Such means could include:

- The introduction of environmental taxes such as the proposed Carbon Taxes that to date have not been enacted;
- A penalty tax, for example a 1% tax imposed on the Johannesburg Stock Exchange (JSE) listed entities; and/or
- Contributions by Government-owned entities, such as by the Electricity Supply Commission (Escom).

In this way the SA Government should be able to raise funds to provide grants to qualifying persons in SA in order to incur energy efficiencies. This will enable low-income households in SA to contribute to achieving energy efficiencies.



4.3 CONCLUSION

In this Chapter the proposed SA legislation on energy efficiency allowances in terms of section 12L was compared in detail with energy efficient tax legislation in the UK was made. It was determined that

- there are more types of tax incentives available to UK taxpayers than to SA taxpayers;
- the administrative burden to qualify for the different tax incentives in the UK is less than that to qualify for the SA proposed section 12L;
- the ECA and LESA allowance are easy to calculate and apply in practice and it appears that it could be more financially beneficial than the SA proposed section 12L, especially since the ECA allows a 100% allowance in the first year of purchasing energy saving technologies;
- there are specific VAT incentives in the UK available to UK taxpayers willing to make the investment in new "green" technologies such as VAT at a reduced rate and in certain circumstances even at a zero rate is available to UK VAT vendors. In addition to this, because the contractor or sub-contractor can charge these lower or zero rates of VAT, the recipients of these services can also benefit. The UK's VAT incentives related to energy efficiency are further developed than those in SA.

The following improvements for SA have been identified during the research performed:

- National Treasury could consider making the administrative burden less to qualify for the section 12L allowance by:
 - Allowing a self assessment of the energy savings reading (similar to the logbook required by individual taxpayers in SA should they wish to claim a deduction against a travel allowance). SARS could implement random checks to promote honest declarations.
- The uncertainties identified in Table 4 should be addressed by National Treasury before enacting section 12L. This will allow for a smooth implementation of this allowance;



- The deadline or window period to qualify for the allowance in terms of section 12L(2), should either be extended or section 12L should be enacted as soon as possible to allow taxpayers adequate time to benefit from this allowance;
- The extent of interaction and the impact of the "Regulations" (meaning the Regulations issued by the Minister of Energy in terms of the National Energy Act, 2008 (Act No. 34 of 2008), after consultation with the Minister of Finance and the Minister of Trade and Industry) with section 12L, should be clearly set out by National Treasury;
- National Treasury could consider removing the trade requirement from section12L and thereby expanding the net of taxpayers' that could qualify for this allowance. This will also stimulate a wider investment in "green" technology. Chapters 3 and 4, one can see that other countries such as the UK and China do generally not make such limitations;
- The accredited measurement and verification professional should be adequately qualified to determine if energy savings were in fact in the production of income; and
- For the SA government to consider developing VAT incentives in SA available to VAT vendors making investments in energy-saving products and to consider the use of government funded energy saving grants to achieve energy efficiencies.

However, in SA, a taxpayer could qualify for both section 12L, the general deduction formula under section 11(a) and the applicable capital allowances under either of sections 12B, 12C or 11(e). In the UK, a taxpayer cannot qualify for both the ECA and another relevant capital allowance on the same capital expenditure and therefore the ECA must be considered on its own.

The financial impact of having one type of tax incentive in SA (proposed section 12L) compared to the many types of incentives in the UK, does not form part of this research study and has therefore not been considered. Due to the large investments made by China in energy efficiency, the tax benefits available in China also need to be considered. This is done in Chapter 5.



CHAPTER 5 CHINA AND ENERGY EFFICIENT TAX LEGISLATION

5.1 INTRODUCTION

In Chapter 3 the UK energy efficient tax legislation was discussed and this was compared to the proposed section 12L in SA, in Chapter 4. According to the World Energy Council (2010:14), China is regarded as a high energy consumer and according to the World Energy Council (2010:53), China has made some of the largest investments in energy efficient technologies. China is also one of the few countries that uses financial incentives such as tax credits as a mechanism to support the deployment of renewable energy. China's energy policy is also quota-based where energy certificates are used as a scheme to support the investment in energy efficient technologies, (World Energy Council, 2010:21).

The following are mechanisms recognised to support the deployment of renewable energy in China, (World Energy Council, 2010:21):

Policy category	Description / benefit	Schemes and Mechanisms	Countries where applicable
Quota-based	Guaranteed amount / share of generation to be renewable	Renewable portfolio standards / Renewable; Energy certificates	United States (US), Sweden, Japan, UK, Australia, France, Brazil, China
Price-setting	Mandated prices for renewable energy	FITs	Germany, Ontario (Canada), Algeria, Brazil, South Africa, Philippines
Financial incentive	Cost reduction	Tax credits; Subsidies / grants; Clean development mechanism	UK, US, France Finland, Poland, Ghana, Mexico, China
Public investment / market facilitation	Equity or debt support	Direct investments; Loans; Guarantees	United Arab Emirates (UAE), Norway, Poland, Saudi Arabia, Germany, Mexico

Table 12: Schemes to support the deployment of renewable energy

Source: World Energy Council (2010:21)



The World Energy Council (2010:24-25) describes China's Renewable Energy Law as follows:

"While renewable energy may form a small percentage of China's energy mix, progress over the past few years has been impressive. The Renewable Energy Law of 2006 was China's first macro-level renewable energy framework and superseded all existing renewable energy-related policies. The framework covered medium- and long-term targets, and established renewable energy as a preferred means for developing the energy, industrial, and high-tech sectors. This framework and a linked national strategy became the basis for more specific policies covering different renewable energy sources (for example hydro-energy, solar, wind and bio-energy), financial measures, and regulatory issues (for example tariffs, grid usage, and planning). In response to identified weaknesses, the law was revised in December 2009 to re-emphasize mandatory gridconnection obligations and to establish enforcement measures to ensure utilities purchased a mandatory market share of electricity from renewable energy. Utilities can apply to a new Renewable Energy Fund to cover the extra cost of integrating renewable energy. Earlier competitive bidding approaches that resulted in low tariffs and low profitability in the wind sector have been replaced by FITs, with similar measures for solar under consideration. To ensure that the additional costs of electricity from renewable energy are met and that the development of renewable energy is adequately financed, a premium is added to the cost of each kWh sold. This has risen fourfold since 2006 to keep up with the growth in the sector."

According to *China Chemical Reporter* (2007:1), energy-saving and cost-reduction are combined with the development and use of renewable energy. Already in 2007, the Chinese government provided state financial, taxation and technical support for the development of renewable energy.

China Chemical Reporter (2007:1) confirms that in 2007 China was already ambitiously expanding the development and use of alternative energy sources. At that time, China was also actively pursuing numerous alternative energy demonstration projects such as biofuel and coal-to-oil. China also undertook to speed up the closure of outdated production units of for example construction materials, flat glass, papermaking and alcohol.



Unsatisfactory treatment of waste water and disposal of trash resulted in financial penalties imposed by the Chinese government.

The World Energy Council (2010:41-42) discusses the reduction of industry energy consumption in high energy-intensive and low energy-intensive sectors as follows: "The continued push for innovation in energy-saving technologies has become increasingly important for manufacturing industries. For example, scrap material recycling in the iron and steel industry can reduce energy needs by four times as much. The cement sector in China, which produces close to half the world's cement needs, has been moving away from inefficient vertical shaft kilns to rotary kilns. China's Top 1,000 Industrial Energy Conservation Programme, formed in 2006, focuses on the 1,000 largest energyconsuming enterprises in China, which consume 33% of national energy and 47% of total industry usage. Depending on China's gross domestic product growth, the programme was expected to contribute around 10-25% of the country's targeted 20% reduction in energy intensity by 2010. The programme is led by a collaboration of five national government bodies (including the National Development Reform Commission and the National Bureau of Statistics), along with provincial governments and industry associations. Targeted enterprises are responsible for decreasing energy use by establishing an energy conservation organisation with efficiency goals, a system for reporting and auditing energy use, energy-savings incentives and training plans, and investment plans for energy efficiency improvements. Companies report how much energy they use every year. Energy savings reached approximately 20% of the target in the first year alone (2006)-partly as a result of increasing management attention and the appointment of energy managers. Other savings have resulted from shutting down inefficient production processes. Reducing energy use may, however, become more difficult during the later years of the programme when greater investments will be needed for repairs and upgrading inefficient equipment. By 2009, China's energy intensity had reduced by over 15% from 2005 levels. To meet its targets, the government is cracking down on 2,000 companies in 18 energy intensive industries, identifying the amount of production that must cease by the end of September, 2010. Penalties for non-compliance include having business licences revoked, power cut off, and bank loans and government approval for new projects refused."



This demonstrates the Chinese government's commitment to ensure that China makes energy savings and investment in new technology which will reduce energy consumption. The Chinese government started by targeting certain industries as described above, where the energy consumption could be reduced significantly.

According to the World Energy Council (2010:53), China has made the largest investment in clean energy and has shown the largest five-year growth on investment from 2004 to 2009. China's 2009 investment amounted to \$34.6 billion and the corresponding five-year return on investment amounted to 148%. The closest competing country was the United States of America (USA) with a 2009 investment of \$18.6 billion and the corresponding five-year return on investment amounting to 103%. It is therefore evident that, due to the large investment in clean energy, it is important to investigate the tax incentives available to Chinese taxpayers who make these investments.

5.2 TAX INCENTIVES AVAILABLE IN CHINA

The following tax and other incentives are available to Chinese taxpayers who make an investment in clean energy-saving products:

Table 13:	Tax and other incentives available in China

Paragraph number	Paragraph description
5.2.1	Tax incentives available to Energy Service Companies (Escos)
5.2.2	Customer Tax Benefits
5.2.3	China's Township Electrification Programme

5.2.1 Tax incentives available to Escos in China

According to Stender and Ye (2010:8), "an Esco is notable for engaging in Energy Management Contracting (EMC), also known as Energy Performance Contracting." This entails a contract between an Esco and a customer. This involves payments to the Esco, designed to be made from the customer's resulting expense reductions in return for a reduction in a customer's energy consumption. This will counter (at all times, but most significantly in the early stages of the project) any net increase in the customer's expenses



or capital investments. According to Stender and Ye (2010:8), "this approach can induce customers to contract for energy-reduction projects that they would otherwise have been rejected because of real or imagined financial and/or technical risks. In 1998, China's first three officially recognised Escos were established in Beijing, Liaoning and Shandong by the China Energy Conservation Project, and backed by the International Finance Corporation and the Global Environment Facility. By 2009, the number of such Escos had grown to 502, and the number of their contracted projects had grown to 4,000 projects." From the above, it is evident that the Chinese government is making use of Escos to entice Chinese taxpayers to make capital investments in clean energy.

Anon. (2010:28), discusses the benefits available to Escos and these are interpreted as follows:

New measures have been introduced by the National Development and Reform Commission (NDRC), which has issued Opinions on "Expediting the Implementation of Energy Performance Contracting for Promoting Energy Saving Service Industry Development". Shanghai-based associate Chen Yun of R&P China Lawyers says "these Opinions allow Escos, including those established by foreign companies, to obtain neat benefits such as alleviating their tax burden, lowering costs to do business and obtainable bank loans more easily, and government authorities will be encouraged to retain Escos for energy performance contracting projects."

Some of the key financial benefits may include:

- a financial subsidy or rebate for those Esco energy saving projects that meet relevant requirements;
- encouragement for financial institutions to provide Escos with adequate financing;
- financial institutions creating and making available innovative credit products;
- broadened scope of collateral available for financing; and
- simplified application and approval procedures for financing.

The tax-related benefits to Escos include -

If an Esco is engaged in EMC or Energy Performance Contracting, it will be exempt from income tax in so far as:



Firstly, the gross revenues derived from an EMC project will be exempt from Business Tax (BT) (applicable to most services) and VAT (applicable to most goods) in the hands of the Esco. This is for a temporary period, which must still be defined by implementing rules. This exemption will provide a valuable benefit to Escos, despite the uncertainty about the definition of this temporary period, (Stender and Ye, 2010:8).

Secondly, a deduction is also allowed, without reference to service fees and asset price, for reasonable expenditures paid to the Esco by an energy consuming company. This must be in terms of the energy performance contract between the two entities, (Anon., 2010:28).

Thirdly, the net income derived by an Esco from an EMC project will, under certain circumstances, be:

- exempt from Enterprise Income Tax (EIT) for the first three years from the year the entity first commenced its manufacture and operation; and
- followed by a 50% reduction in the EIT rate for three years, following the initial three year exemption period.

An Esco's eligibility, newly clarified in the Opinions mentioned above, for a pre-existing incentive will result in this exemption. The eligibility of Escos is specified in the EIT Law (Article 27) and in the EIT Law Implementing Regulations (Article 88), (Stender and Ye, 2010:8).

Fourthly, Escos need not recognise deemed income if they transfer ownership of assets to customers at the end of an EMC project "free of charge". The Chinese tax authorities had the power in the past to insist on the recognition of deemed income in these cases, (Stender and Ye, 2010:8). In addition, assets transferred due to the implementation of an EMC, will be exempt from VAT, (Anon., 2010:28).

5.2.2 Customer Tax Benefits

Corresponding benefits will be enjoyed by customers of Escos. These benefits, discussed by Stender and Ye (2010:8) are listed below:



- asset transfers will not impose any mandatory accounting or tax detriments on customers;
- transferred assets will be treated as fully amortised or depreciated;
- the right to treat the full amount of payments to an Esco under an EMC as a tax deductable expense, as opposed to the allocation of any portion of such payments to the (amortisable or depreciable) capital investment; and
- government agencies and public institutions, which will be particularly suitable customers of EMC projects, will be permitted to treat payments under an EMC as "energy expenses" and to treat the receipt of assets under such an EMC as a receipt of "donations".

5.2.3 China's Township Electrification Programme

According to World Energy Council (2010:26), types of support offered by the Chinese government include: "China's Township Electrification Programme", initiated in 2001 and now succeeded by the Village Electrification Programme. It has been shown that renewable energy can be used in rural areas to achieve both social equity and environmental impact mitigation objectives, as well as supporting economic development. The programme is an extension of the Brightness Programme, which, between 1998 and 2004, provided electricity for 1.78 million households, 2,000 village systems and 200 station systems. It did this by creating local grids, since this was a cheaper and more practical solution than using individual diesel generators or connecting rural users to the grid. The Township Electrification Programme provided over 1,000 towns with electricity in 20 months through the installation of 20 megawatt (MW) of solar photovoltaic's (PVs) and 263 MW of small-scale hydro power. The cost amounted to Chinese Yaun (CNY) 4.7 billion (US Dollar 0.56 billion), over half of which was funded by government bonds. The implementation of this programme kick-started China's solar PV industry, with the production of PV modules increasing tenfold over the duration of the programme." This is not a tax benefit provided by the Chinese government, but rather financial support in the form of an investment in areas where energy saving is a priority for the Chinese government.



5.3 COMPARISON BETWEEN THE SA PROPOSED ENERGY EFFICIENCY SAVINGS ALLOWANCE AND CHINESE ENERGY EFFICIENT TAX LEGISLATION

In the table below a summary of the tax incentives of the proposed energy efficiency savings allowance and general capital allowances (either of sections 12B, 12C or section 11(e)) in SA is compared to the tax incentives available to Escos in China:

Table 14: Comparison of the tax incentives of the proposed SA section 12L and general capital allowances in SA to the tax incentives available in China

Energy efficiency savings allowance as per section 12L and general capital allowances (sections 12B, 12C or section 11(e))	Tax incentives in China
Energy efficiency savings certificate as pre- requisite supporting documentation. (section 12L(1) of the Act (58/1962))	No such requirement was identified during the research performed.
This certificate should be issued by an accredited measurement and verification professional. (section 12L(1) of the Act (58/1962))	No such requirement was identified during the research performed.
The energy efficiency savings certificate should reflect — (section 12L(1) of the Act (58/1962))	No such requirement was identified during the research performed.
(a) the baseline at the beginning of the year of assessment, with the criteria and methodology determined in accordance with the Regulations; (section 12L(1)(a) of the Act (58/1962))	No such requirement was identified during the research performed.
(b) the reporting period at the end of the year of assessment, with the criteria and methodology determined in accordance with the Regulations; (section 12L(1)(b) of the Act (58/1962))	No such requirement was identified during the research performed.
(c) the annual energy efficiency savings expressed in kilowatt hours or kilowatt hours equivalent for the year of assessment including the full criteria and methodology used to calculate the energy efficiency savings determined in accordance with the Regulations; and (section 12L(1)(c) of the Act (58/1962))	No such requirement was identified during the research performed.
(d) any other information that may be required by the institution, board or body determined by the Regulations in the form and manner and at the time and place that that institution, board or body may require; (section 12L(1)(d) of the Act (58/1962))	No such requirement was identified during the research performed.



Energy efficiency savings allowance as per section 12L and general capital allowances (sections 12B, 12C or section 11(e))	Tax incentives in China
All energy savings should be in the production of income. (section 12L(2) of the Act (58/1962))	No such requirement was identified during the research performed.
In determining the taxable income derived by any person in any year of assessment ending before 1 January 2020, a deduction of a notional allowance will be allowed from the income of that person. (section 12L(2) of the Act (58/1962))	No such requirement was identified during the research performed.
That person must be carrying on a trade as defined in the Act. (section 12L(2) of the Act (58/1962))	No such requirement was identified during the research performed.
Both natural and non-natural persons can qualify for the deduction of this allowance. (section 12L(2) of the Act (58/1962))	No such requirement was identified during the research performed.
The allowance for each year of incremental saving is determined as follows: (Energy efficiency savings x applied rate) ÷ 2 (section 12L(3) of the Act (58/1962))	Gross revenues derived from an EMC project will be exempt from Business Tax (BT) (applicable to most services) and VAT (applicable to most goods) in the hands of the Esco. This is for a temporary period, which must still be defined by implementing rules. This exemption will provide a valuable benefit to Escos, despite the uncertainty about the definition of this temporary period, (Stender and Ye, 2010:8). A deduction is also allowed, without reference to service fees and asset price, for reasonable expenditures paid to the Esco by an energy consuming company. This must be in terms of the energy performance contract between the two entities, (Anon., 2010:28).
	The net income derived by an Esco from an EMC project will, under certain circumstances, be: (a) exempt from Enterprise Income Tax (EIT) for the first three years from the year the entity first commenced its manufacture and operation; and (b) followed by a 50% reduction in the EIT rate for three years, following the initial three year exemption period. The eligibility of Escos is specified in the EIT Law (Article 27) and in the EIT Law Implementing Regulations (Article 88), (Stender and Ye, 2010:8).



Energy efficiency savings allowance as per section 12L and general capital allowances (sections 12B, 12C or section 11(e))	Tax incentives in China
	Escos need not recognise deemed income if they transfer ownership of assets to customers at the end of an EMC project "free of charge". The Chinese tax authorities had the power in the past to insist on the recognition of deemed income in these cases, (Stender and Ye, 2010:8). In addition, assets transferred due to the implementation of an EMC, will be exempt from VAT, (Anon., 2010:28).
A deduction must not be allowed in terms of this section if the person contemplated in subsection (2) receives any concurrent benefit as prescribed in the Regulations. (section 12L(4) of the Act (58/1962))	No such requirement was identified during the research performed.
Neither payment nor accrual basis, but based on incremental energy savings. Capital allowances are mainly on the accrual basis because a taxpayer can commence claiming on the date the asset is brought into use, irrespective whether fully paid or not. (section 12C(1) of the Act (58/1962))	No such requirement was identified during the research performed.
Unused equipment is a requirement for sections 12B and 12C, but not for section 11(e). (sections 12B(1), 12C(1), 11(e) of the Act (58/1962))	No such requirement was identified during the research performed.
Used or second-hand goods may qualify for capital allowance in terms of section 11(e), but not for sections 12B or 12C. (sections 12B(1), 12C(1), 11(e) of the Act (58/1962))	No such requirement was identified during the research performed.
Section 12L has not been enacted and comes into operation on the date on which section 27(1) of the Taxation Laws Amendment Act, 2009, comes into operation, (Wilcocks, 2011:258).	This allowance is enacted and is available to Escos in China.

It is clear from the above comparison that the tax benefits of these two countries are not the same because the proposed SA section 12L provides taxpayers with an allowance in each year of incremental energy savings whereas the benefits available to Esco's include total tax exemption for an initial three year period, followed by a 50% reduction in the EIT rate for another three years. The tax incentives available to Escos are easy to apply because it comprises exemptions from BT, EIT and VAT for certain time periods. However it also has its uncertainties and difficulties such as:



- the definition of the "temporary period" in which gross revenues derived from an EMC project will be exempt from BT (applicable to most services) and VAT (applicable to most goods) in the hands of the Esco.
- an energy performance contract is needed to qualify for the deduction, without reference to service fees and asset price, for reasonable expenditures paid to the Esco by an energy consuming company, (Anon., 2010:28).

It is also appears to be more incentivising because an Esco could enjoy full exemptions from BT, EIT and VAT and 100% of the cost of the investment in new "green" technology is therefore deductable for tax purposes. In SA, only the average of the energy savings multiplied by an applied rate is allowed as a deduction.

5.4 CONCLUSION

Stender and Ye (2010:8) are of the opinion that in order for EMC to reach its full potential for conservation and energy efficiency, additional systematic changes may be necessary. One of these potential additional changes includes linking property tax preferences based on energy conservation, to property itself. This is regardless of changes in ownership and this will encourage participation by property owners who may not retain ownership throughout the payback period of retrofitting.

Stender and Ye (2010:8) explain that "the prospects of Escos and EMC in China gaining sustained government support, private investment, expansion and profitability appear particularly bright because of the intersection of several underlying economic and policy trends. Escos and EMC will both benefit from and contribute to China's movement to increased energy conservation and to further localise the generation of renewable energy."

It is evident that the Chinese government is serious about its investment in energy saving products. This is done through its own financial investment plans and continuous support of entities that make such investments. A major mechanism of support includes tax benefits to Escos and its customers that are committed to energy conservation. The tax benefits available to Esco's appear to be financially more than the benefits contained in the proposed SA section 12L. The tax benefits of these two countries are not the same



because the proposed SA section 12L provides taxpayers with an allowance in each year of incremental energy savings whereas the benefits available to Esco's include total tax exemption for an initial three year period, followed by a 50% reduction in the EIT rate for another three years.



CHAPTER 6 SUMMARY, CONCLUSION AND VALUE OF THE STUDY

6.1 INTRODUCTION

In this Chapter, the findings of the research performed will be summarised in the light of the research objectives set at the start of this study. This will be done per chapter of research performed in this study. Finally, an overall conclusion and the value of this study is discussed.

6.2 RESEARCH OBJECTIVES

At the commencement of this study, the following research objectives were set:

- To critically evaluate each of the current proposed provisions of section 12L of the Act to determine whether it would be economically viable for taxpayers to invest in new energy saving technologies.
- To evaluate whether the notional allowance of section 12L will be in addition to current tax allowances and deductions, based on actual expenditure incurred in the investment in new green technologies.
- To compare the SA proposed legislation on energy efficiency allowances in terms of section 12L to legislation in China and the UK.

Each of these objectives was addressed and the results are summarised in paragraphs 6.3 to 6.6.

6.3 A DETAILED EVALUATION OF THE SA PROPOSED ENERGY EFFICIENCY SAVINGS ALLOWANCE

Each of the current proposed provisions of section 12L of the Act was critically evaluated and it was found that it would be economically viable for taxpayers to invest in new energy saving technologies. It was also found that it can be expected that the notional allowance of section 12L will be in addition to current tax allowances and deductions, based on actual expenditure incurred in the investment in new green technologies.



6.4 A DETAILED EVALUATION OF THE UK ENERGY EFFICIENT TAX LEGISLATION

A detailed evaluation and understanding of the various tax incentives available to UK tax residents was obtained. It was identified that there are various forms of incentives available to UK taxpayers who are willing and able to make an investment in energy efficient products. As a result, a detailed comparison of the proposed SA section 12L and the types and requirements of the various types of UK energy efficient tax legislation could be made in Chapter 4.

6.5 A COMPARISON BETWEEN THE PROPOSED SA ENERGY EFFICIENCY SAVINGS ALLOWANCE AND UK ENERGY EFFICIENT TAX LEGISLATION

A detailed comparison of the proposed SA legislation on energy efficiency allowances in terms of section 12L to energy efficient tax legislation in the UK was made. It was determined that there are more types of tax incentives available to UK taxpayers than to SA taxpayers. There are therefore gaps for alternative tax incentives in SA, relating to energy efficiency. The financial impact of having one type of tax incentive in SA (proposed section 12L) compared to many types of incentives as in the UK, has not been determined as it does not form part of the scope of this research study.

The following improvements have been identified during the research performed:

- National Treasury could consider making the administrative burden less to qualify for the section 12L allowance by:
 - Allowing a self assessment of the energy savings reading (similar to the logbook required by individual taxpayers in SA should they wish to claim a deduction against a travel allowance). SARS could implement random checks to promote honest declarations.
- The uncertainties identified in Table 4 should be addressed by National Treasury before enacting section 12L. This will allow for a smooth implementation of this allowance;



- The deadline or window period to qualify for the allowance in terms of section 12L(2), should either be extended or section 12L should be enacted as soon as possible to allow taxpayers adequate time to benefit from this allowance;
- The extent of interaction and the impact of the "Regulations" (meaning the Regulations issued by the Minister of Energy in terms of the National Energy Act, 2008 (Act No. 34 of 2008), after consultation with the Minister of Finance and the Minister of Trade and Industry) with section 12L, should be clearly set out by National Treasury;
- National Treasury could consider removing the trade requirement from section12L and thereby expanding the net of taxpayers' that could qualify for this allowance. This will also stimulate a wider investment in "green" technology. Chapters 3 and 4, one can see that other countries such as the UK and China do generally not make such limitations;
- The accredited measurement and verification professional should be adequately qualified to determine if energy savings were in fact in the production of income; and
- For the SA government to consider developing VAT incentives in SA available to VAT vendors making investments in energy-saving products and to consider the use of government funded energy saving grants to achieve energy efficiencies.

The UK's VAT incentives relating to energy efficiency and the UK energy saving grant incentives are further developed than those in SA. Based on the above, a comparison of the SA proposed legislation on energy efficiency allowances in terms of section 12L, to similar legislation in the UK could be made and the differences, advantages, shortcomings and limitations of the proposed SA section 12L were exposed.



6.6 CHINA AND ENERGY EFFICIENT TAX LEGISLATION

It is evident that the Chinese government is serious about its investment in energy saving products. This is done through its own financial investment plans and continuous support of entities that make such investments. A major mechanism of support includes tax benefits to Escos and their customers that are committed to energy conservation. The tax benefits available to Esco's appear to be financially more than the benefits contained in the proposed SA section 12L. The tax benefits available to Esco's include to the same because the proposed SA section 12L provides taxpayers with an allowance in each year of incremental energy savings, whereas the benefits available to Esco's include total tax exemption for an initial three year period, followed by a 50% reduction in the EIT rate for another three years. A comparison of the SA proposed legislation on energy efficiency allowances in terms of section 12L, to similar legislation in China could be made. Differences, shortcomings and limitations of the proposed section 12L were highlighted again.

6.7 CONCLUSION

Based on the research performed in this study it was found that:

- each of the current proposed provisions of section 12L of the Act was critically evaluated to determine that it would be economically viable for taxpayers to invest in new energy saving technologies;
- the notional allowance of section 12L will be in addition to current tax allowances and deductions, based on actual expenditure incurred in the investment in new green technologies; and
- the proposed SA legislation on energy efficiency allowances in terms of section 12L was compared to legislation in China and the UK. The differences, advantages, shortcomings and limitations of the proposed SA section 12L were identified.

All the objectives of this study were therefore addressed and the outcome successfully determined.



6.8 CONTRIBUTIONS AND SUGGESTIONS FOR FUTURE RESEARCH

From a theoretical perspective, the proposed study made two valuable contributions to the extant body of knowledge of the few existing sources of energy efficiency allowances: Firstly, as far as could be determined, this was one of the first studies on energy efficiency allowances in a developing economy and, in particular, in SA. Secondly, the study made a unique contribution by identifying and investigating differences in the proposed SA section 12L compared to similar legislation in China and the UK.

From a practical perspective, the findings should assist taxpayers to be aware of the possible, proposed benefits available to them to invest in new "green" technologies. Also, that this notional allowance will be in addition to allowances and deductions based on actual expenditure incurred in the investment of new clean technologies.

There is an opportunity for further research on possible VAT specific incentives regarding energy efficiencies in SA. It would also be beneficial for the practical application of section 12L once enacted to be researched, to determine whether the current practical concerns and limitations identified in this study, have been addressed.



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