



## Committee Decision Report

**Author/Lead Officer of Report: Jason Peck – Contract Manager**

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**Report to:** *Strategy and Resources Committee*

**Date of Decision:** *15/03/2023*

**Subject:** *The Purchase of Electricity from Renewable Sources*

Has an Equality Impact Assessment (EIA) been undertaken?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
If YES, what EIA reference number has it been given? <i>(1350)</i>				
Has appropriate consultation taken place?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Has a Climate Impact Assessment (CIA) been undertaken?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Does the report contain confidential or exempt information?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
If YES, give details as to whether the exemption applies to the full report / part of the report and/or appendices and complete below: -				

### **Purpose of Report:**

The report will detail the energy tariff options available to the Council from its new electricity supplier (EDF).

The report will set out the Renewable Energy Guarantee of Origin (REGO) arrangement the Council has under the contract with its current supplier (which will expire in March 2023) and recommend that the Council purchases the standard product under the contract with its new supplier (which commences in April 2023). The standard product does not involve the purchase of REGOs.

The report will set out the Council's intention that monies previously allocated for the purchase of REGOs is deployed on building a comprehensive communications and engagement package that will allow communities and organisations to learn about and access specific renewable energy funding and investment opportunities, subject to separate Council approval.

This decision will allow the Council to realise a significant cost avoidance for the financial year 2023/24 and years moving forward and by allocating the monies to local renewable energy projects it will have a positive effect on the Council's route to net zero by 2030.

**Recommendations:**

It is recommended that the Strategy and Resources Committee:

- 1) approves the Council purchasing the standard option for electricity generation with EDF, as set out in this report;
- 2) notes the Council's intention to internally reallocate monies previously allocated for the purchase of REGOs to building a comprehensive communications and engagement package that will allow communities and organisations to learn about and access specific renewable energy funding and investment opportunities.

**Background Papers:**

*None*

Lead Officer to complete: -		
1	I have consulted the relevant departments in respect of any relevant implications indicated on the Statutory and Council Policy Checklist, and comments have been incorporated / additional forms completed / EIA completed, where required.	Finance: James Lyon
		Legal: <i>Richard Marik</i>
		Equalities & Consultation: <i>Louise Nunn</i>
		Climate: <i>Kathryn Warrington</i>
<i>Legal, financial/commercial and equalities implications must be included within the report and the name of the officer consulted must be included above.</i>		
2	<b>SLB member who approved submission:</b>	<i>Ajman Ali</i>
3	<b>Relevant Policy Committee</b>	<i>Strategy and Resources</i>
4	I confirm that all necessary approval has been obtained in respect of the implications indicated on the Statutory and Council Policy Checklist and that the report has been approved for submission to the Decision Maker by the SLB member indicated at 2. In addition, any additional forms have been completed and signed off as required at 1.	
	<b>Lead Officer Name:</b> <i>Jason Peck</i>	<b>Job Title:</b> <i>Contract Manager</i>
	<b>Date</b> <i>02/03/2023</i>	

## 1. PROPOSAL

- 1.1 This report seeks approval for the Council to purchase the standard option for electricity generation under the service contract with EDF (commencement date 1 April 2023) which carries no premium payment. This option is preferred to other renewable options which carry a premium.

### Background

- 1.2 The Council is a significant user of electricity with over 1,000 operational buildings and schools. The electricity needs of these buildings as well as the City's unmetered street lighting are currently being supplied by Npower via a call-off contract under the Yorkshire Purchasing Organisation (YPO) public framework and contract managed through the Council's Facilities Management Energy Team and Procurement and Supply Chain Team. The contract with Npower comes to an end at the end of March 2023. From the 1<sup>st</sup> of April 2023 the Council's electricity supplier will be EDF via the Crown Commercial Services (CCS) public framework. The move to the CCS and the contract with EDF for the supply of electricity was agreed in September 2022 by the Strategy and Resources Committee. At the time of this decision to move to EDF the options available to the Council for purchasing a renewable electricity tariff were not available from the supplier, therefore it was decided at the committee meeting that a further decision would be made by the Strategy and Resources Committee on the purchase of a renewable electricity tariff once details were available.
- 1.3 In February 2019, a motion to declare a Climate Emergency was passed at Full Council. As part of that motion, point 4.4 stated "***asks this Administration to make an immediate decisive contribution towards this vital target by ensuring that the forthcoming procurement of the Council's electricity supply is entirely drawn from renewable sources***".
- 1.4 To meet this obligation, the subsequent procurement of the Council's electricity included the purchasing of Renewable Energy Guarantee of Origin (REGO) certificates for the duration of the supply framework until March 2023. This has resulted in an additional cost of around £40,000 annually to the Council. The procurement of REGOs is the standard route organisations in the UK take to claim they purchase electricity generated from renewable sources.
- 1.5 The cost of purchasing REGO's has seen a marked increase (+700%) for the year 2023/24 with an estimated cost to the Council of circa £200,000.
- 1.6 For the financial year 2022/23 the Council purchased REGO's from its electricity supplier Npower for electricity from renewable sources which included biomass generation, this option was called the Npower Business Renewable product. This is equivalent to the EDF UK Renewable for Business option available to the Council for the year 2023/24 described in paragraph 1.17 of this report.

## The Renewable Energy Guarantee of Origin

- 1.7 The UK's electricity grid is supplied by various forms of electricity generation including nuclear, hydro-electric, wind-power, gas and solar. With the UK aiming to reach **net zero** by 2050, a crucial part of the national strategy is to transition to an electricity system with 100% zero-carbon generation and much of this is expected to come from renewable energy. 2020 marked the first year in the UK's history that electricity came predominantly from renewable energy, with 43% of power coming from a mix of wind, solar, bioenergy and hydroelectric sources. However, most of the electricity entering the national grid from a single energy source is natural gas. Natural gas is a largely imported fossil fuel and can emit harmful Greenhouse Gases such as carbon dioxide (CO<sub>2</sub>) when burned to generate electricity.
- 1.8 As mentioned previously, electricity within the UK is fed into the national grid from a variety of sources and without a direct feed from a specified generator it is not possible to determine the source of the electricity an organisation uses. The Renewable Energy Guarantee of Origin (REGO) scheme is the primary way in which organisations can claim to be using electricity from renewable sources.
- 1.9 The REGO scheme was launched in 2015 as part of the EU's Renewable Energy Directive's requirement for Member States to report the proportion of renewable electricity production. A REGO certificate is produced to demonstrate the "energy attribute" for each 1MWh of renewable electricity generated. Suppliers use REGOs as evidence of their Fuel Mix Disclosure, which shows the proportional mix of all fuels within their electricity supply on an annual basis.
- 1.10 In simple terms generators of electricity utilising renewable technology such as wind power and solar are issued with a REGO certificate for each megawatt of electricity they produce. These certificates are then purchased by the electricity suppliers who sell them on to end users who wish to claim they are using electricity from renewable sources. There is a limited supply of these certificates and as more organisations and individuals recognise the Climate Emergency the demand for REGOs had increased and so has the cost of acquiring them.
- 1.11 All renewable products available to the Council via its electricity supplier require the purchase of REGOs. For the financial year 2022/23 the Council purchased REGO's from its electricity supplier Npower for electricity from renewable sources which included biomass generation.
- 1.12 Following a decision made in September 2022 by the Strategy and Resources Committee the Council has changed the way in which it accessed the energy market by moving from the Yorkshire Purchasing Organisation (YPO) to the Crown Commercial Service (CCS) and consequently changed its electricity provider from Npower to EDF. Both YPO and CCS are public frameworks.

1.13 Forecasts provided by our supplier for 2023/24 (EDF) indicate that the cost of purchasing REGOs for the year 2023/24 will increase from the current annual cost of **£39,000** to a cost of between **£198,000** and **£287,000** depending on what category of renewable electricity the Council decides to subscribe to.

1.14 Under the Greenhouse Gas Protocol, organisations that are using contractual arrangements to procure renewable electricity should report both the market-based emissions (in this case zero when purchasing REGO's) and the location-based emissions (using the national grid average). The latter is the reporting approach given in Defra's Environmental Reporting Guidelines which states that grid average should be used rather than procurement approach.

1.15 The grid average emissions are used to calculate the Council's baseline emissions and the Arup report 'Zero Carbon Pathway for Council Assets' (2020) did not recommend using a procurement-based approach to reach net zero on our electricity use and therefore the decision to not procure REGO backed electricity supply will not impact on the Council's net zero target reporting.

1.16 **EDF**

EDF's electricity supply is sourced from its own UK power stations, the wholesale energy market and other independent power generators. The information in the table below details EDF's generators fuel mix for period April 2021 to March 2022.

	Coal	Gas	Nuclear	Renewable	Other	CO <sub>2</sub> g/kWh	Radioactive waste g/kWh
EDF's fuel mix	1.60%	15.10%	63.10%	19.00%	1.2%	82	0.0044
Contribution to EDF emissions	19.70%	68.2%	0.0%	0.00%	12.10%		

1.17 With EDF the Council has several options on which electricity generation it wants to purchase / align itself to, details below. The cost of each option is calculated using the current quoted premium applied to each kilowatt hour of electricity used and forecast electricity usage for 2023/24. The Standard Product and the Zero Carbon for Business options below are the only options which do not involve purchasing REGOs.

- **Standard Product** classed as brown energy has no guarantee of origin and can be from any of the generation including gas and coal. There is **no additional cost** to the Council on this product
- **Zero Carbon for Business** is backed by zero carbon electricity generated from nuclear power stations. This would allow the Council to report zero carbon emissions for its electricity supply for its market-based activity. In an emissions sense, nuclear power is considered

to be clean. It produces zero carbon emissions and doesn't produce other noxious greenhouse gases through its operation. Nuclear is not considered renewable as they operate using finite material mined from the ground and can only be found in certain locations. There are concerns around what to do with spent fuel from reactors, as there's still no definitive way to dispose of it indefinitely without risk. The estimated cost of this option for 2023/24 is **£52,198.43\***

- **Renewable for Business** is backed by UK REGOs or European GoOs, from a blend of sources including hydro, wind, solar, biomass and landfill gas. It must be noted that the combustion of biomass is not greenhouse gas emission free. Biomass can be considered a renewable form of energy and electricity generation as its growth (e.g. of plants or trees) removes greenhouse gases like carbon dioxide from the atmosphere and stores it in soil, trees and other vegetation. As such, it is argued that when managed and harvested in a sustainable way, biomass can be used to help reduce carbon emissions. The estimated cost of this option for 2023/24 is **£198,354.05**. This product is equivalent to the product purchased from Npower for the year 2022/23.
- **Clean Renewable** is backed by UK REGOs and is sourced from wind, solar and hydro assets. This is the 'cleanest' of the renewable options. The estimated cost of this option for 2023/24 is **£287,091.39\***
- **Blended Zero Carbon** is a mix of 50% UK Renewable and 50% Zero Carbon for Business. The 50% UK Renewable would be backed by the purchasing of REGOs. The estimated cost of this option for 2023/24 is **£133,496.09\***
- **Select Renewable** enables the Council to request a tailored supply solution to cater for a range of location, technology and generator-specific preferences, this option would require further discussion with the supplier to determine cost and options. This option would be backed by the purchasing of REGO's from specified generators. The estimated cost of this option for 2023/24 is **£417,587.47\***

*\* Includes schools that subscribe to the Councils energy package (both academies and maintained). A more detailed breakdown of cost is provided in paragraph 4.2.1*

## **A 10 Point Plan for Climate Action**

- 1.18 The Council's 10-point plan for climate action lays out a framework for how the Council will work to address the climate crisis. One of the key features of the 10 Point Plan is the recognition that the route to net zero will take considerable financial investment at a level beyond the means of the Council

alone and will involve working with central government, local businesses and other third-party organisations if our declared targets are to be achieved.

1.19 The Council has made progress in several areas of the 10 Point Plan in addressing the climate crisis, both in securing funding and implementing 'schemes' on the ground, examples below:

- In November 2022, the Transport, Regeneration and Climate Committee approved the scope of the £3.5m Local Renewable Energy Fund and work is now underway in identifying council buildings to benefit from this, with survey work being commissioned shortly.
- The £2.1m Sustainable Cultural and Community Facilities programme will provide capital grant funding to improve the energy efficiency and environmental performance of public facing buildings and spaces in Sheffield with an initial focus on buildings used primarily for community and/or cultural purposes. The grants will be funded by UK Shared Prosperity Fund.
- We also have approval for £100k from the Feasibility Fund as a contingency to cover the cost of energy audits associated with the capital projects.
- Facilities Management have commenced a series of energy audits at sites to identify energy saving measures that can be implemented quickly and at minimal cost. With the new hybrid working and offices less occupied than they were prior to the pandemic there are opportunities for reducing energy demand. The audits are targeting 'quick wins' such as challenging staff behaviours with regards to energy use and reviewing local heating controls.
- Facilities Management have also commissioned much more detailed energy surveys to be undertaken by APSE Energy. Surveys have been completed at the Medico Legal Centre and five local housing offices with another 12 sites identified to be completed. These surveys include a review of sites current status with regards to energy usage and consider such factors as insulation, energy use and heating systems. The surveys then provide a costed proposal to reduce energy usage at the site, detailing proposed measures, the resulting carbon reductions and financial payback. The surveys will put the Council in a position to apply for funding from the Public Sector Decarbonisation Scheme once the next round of funding becomes available.

### **Renewable Energy - Investment**

1.20 The need for investment is a constant theme within the 10 Point Plan and this is particularly evidenced by the extracts below regarding renewable energy.

- Supporting businesses and jobs at risk to adapt, and create clean growth through investing in renewable energy, sustainable transport,

smart technologies, research and development

- Investing in renewable energy and energy efficiency, particularly in combination with accessing government funding, can provide energy efficiency savings and revenue in the short and long term.
- Identify opportunities for solar PV retrofit on our buildings and homes and renewable energy generation and storage on our land.

1.21 The installation of local renewable energy technology requires investment. With the Council's budget under severe pressure, it is imperative that every opportunity to identify funding for renewable energy projects within the city is identified and acted upon.

1.22 It is against this backdrop of a lack of available financial resources that the issue of purchasing REGOs must be considered. Subscription to an energy tariff backed by REGOs does not contribute to the Council's 10-point plan and has no effect on reducing demand for energy within the city or contribute to the production of renewable energy within Sheffield. Investment in local sustainability projects to reduce demand for electricity from the national grid must be a higher priority than purchasing a renewable tariff from our electricity supplier. The Arup report 'Zero Carbon Pathway for Council Assets' (2020) did not recommend using a procurement-based approach (i.e. REGOs) to reach net zero on our electricity use.

1.23 Investing the monies previously spent on REGO's into local sustainability projects would be a decision that aligns directly to the Council's 10-Point Plan for climate action. It is therefore the intention that the Council allocates the £40k a year previously spent on REGOs internally to support the Council's local renewable energy and climate change projects. It is intended that £40k is deployed on building a comprehensive communications and engagement package that will allow communities and organisations to learn about and access specific renewable energy funding and investment opportunities. Officers will work with Local Area Committees, businesses and community organisations to allocate SCC climate resources.

### **Core Cities**

1.24 We have made enquiry with other Core Cities asking if they had a policy of purchasing REGOs. Of the 10 cities approached we have received 5 replies. Only one of the 5 councils that replied is committed to purchasing REGO's for the year 2023/24. It is clear from the councils that have responded that the majority do not have a policy of purchasing REGOs.



## **Recommendation**

1.25 It is recommended that the Council subscribes to the EDF **Standard Product** and does not pay a premium for one of the EDF alternative options.

1.26 The Council intend to internally allocate the £40k previously spent on REGOs toward deploying and building a comprehensive communications and engagement package that will allow communities and organisations to learn about and access specific renewable energy funding and investment opportunities, this will have a more positive and direct effect on the Council's route to net zero.

1.27 The alternative options available from EDF have a cost implication to the Council and none are considered to have a positive effect on the amount of emissions being reported by the Council as part of the target to reach net zero by 2030.

## **2. HOW DOES THIS DECISION CONTRIBUTE?**

- 2.1
- The Council will realise a significant cost avoidance on its electricity supply for 2023/24 in comparison to purchasing a renewable energy tariff for its electrical supply.
  - Provide additional funding for sustainability projects

## **3. HAS THERE BEEN ANY CONSULTATION?**

- 3.1 There is no requirement to consult. Evidence to support the proposal is obtained from scientific research and other sources.

## **4. RISK ANALYSIS AND IMPLICATIONS OF THE DECISION**

### 4.1 Equality Implications

- 4.1.1 Overall, there are no significant differential, positive or negative, equality impacts from this proposal.

### 4.2 Financial and Commercial Implications

- 4.2.1 The tables below detail the estimated cost to the Council of the decision on which category of energy to purchase. Forecast figures for the year 2022/23 are included for comparative purposes.

## 2022/23 (Npower)

Fuel Description	Energy Source	Cost	SCC	Schools*
Business Renewable	100% Renewable	£39,148.83	£23,994.08	£15,154.75

## 2023/24 (EDF)

Fuel Description	Energy Source	Cost	SCC	Schools*
Our standard product, classed as Brown	Standard	£0.00	£0.00	£0.00
Sourced from zero carbon nuclear generation	Zero Carbon for Business	£52,198.43	£31,992.10	£20,206.33
Sourced from a range of renewable technologies across the UK only	UK Renewable for Business	£198,354.05	£121,569.98	£76,784.07
Specifically sourced from wind, solar and hydro assets	Clean Renewable	£287,091.39	£175,956.55	£111,134.84
A mix of 50% UK Renewable and 50% Zero Carbon for Business	Blended Zero carbon	£130,496.09	£79,980.25	£50,515.84
Allows customers to request a tailored supply solution to cater for a range of location, technology and generator-specific preferences	Select Renewable	£417,587.47	£255,936.80	161,650.64

All prices contained in the chart above are correct at the time of writing this report. The availability of REGOs and their associated cost is subject to market fluctuation.

*\* There are currently over 140 schools subscribed to the Council's energy package, this includes both maintained schools and academies.*

### 4.3 Legal Implications

- 4.3.1 The Climate Change Act 2008 is the basis for the UK's approach to tackling and responding to climate change. It requires that emissions of carbon dioxide and other listed greenhouse gases are reduced and that climate change risks are adapted to.
- 4.3.2 The Climate Change Act commits the UK government by law to reducing net greenhouse gas emissions (net UK carbon account) by at least 100% of 1990 levels by 2050.
- 4.3.3 Section 27 of the Climate Change Act defines the "net UK carbon account". The starting point is UK emissions for the year from all sources in the UK, excluding those from land use, land use change and forestry (LULUCF). These are then adjusted to take account of emissions and removals by sources and sinks associated with LULUCF activity. It is further adjusted to account for: a) carbon units which have been brought in from overseas by Government and others to offset UK emissions ("credits"), thereby reducing the net UK carbon account; and b) UK carbon units which have been sold to a third party outside the UK or otherwise disposed of ("debits").
- 4.3.4 The Climate Change Act also requires the government to set legally binding

'carbon budgets' to act as stepping stones towards the 2050 target. A carbon budget is a cap on the amount of greenhouse gases emitted in the UK over a five-year period and are set at least 12 years in advance to allow policy-makers, businesses and individuals enough time to prepare. Once a carbon budget has been set, the Climate Change Act places an obligation on the Government to prepare policies to ensure the budget is met.

4.3.5 There are no direct legal obligations on the Council at this point in time but it is recognised the Government cannot meet its obligations without significant input and drive from local authorities.

4.3.6 The Council, when delivering services, is subject to the 'best value duty'. This requires the Council to 'make arrangements to secure continuous improvement in the way in which its functions are exercised, having regard to a combination of economy, efficiency and effectiveness.'

4.3.7 The contracting arrangements are permitted by the Local Government (Contracts) Act 1997 and should ensure the Council meets its best value duty.

#### 4.4 Climate Implications

4.4.1 In their "Corporate Procurement of Renewable Energy: Implications and Considerations" briefing document, the Climate Change Committee have noted that the procurement of renewable electricity has had a limited and in some cases no impact on emission reductions at the building or national level as the procurement routes have not led to increased renewable electricity generation nor do these procurement routes change the actual power that is consumed at the building level. As such, it is considered that removing the procurement of REGO's from the Council's electricity supply contract will have no climate implications.

4.4.2 In terms of reporting the Council's greenhouse gas emissions, the Greenhouse Gas Protocol states that organisations participating in any contractual arrangements for the procurement of renewable electricity shall dual report their Scope 2 emissions in the following two ways;

- Location based method – uses the average emissions intensity of the power in the National Grid.
- Market based method – reflects emissions from electricity that has been procured through contractual arrangements

Defra's Environmental Reporting Guidelines state that the current approach for quantifying emissions from purchased electricity must use the grid average conversion factor but can report an emissions reduction in net emissions for any generated renewable electricity that is exported to the grid.

Therefore, the removal of REGOs from procured electricity will have no increase in the amount of emissions being reported as part of the Council's target to reach net zero by 2030.

#### 4.5 Other Implications

- 4.5.1 Possible reputational risk and adverse publicity if decision is made to move away from procuring a renewable energy tariff.

### 5. **ALTERNATIVE OPTIONS CONSIDERED**

#### 5.1 Option 1 – Purchase Renewable for Business option from EDF

Advantages:

- This would be a continuation of the Council procuring REGO's for its electricity supply.
- This would enable the Council to declare that its electricity is generated from renewable sources for its market-based emissions.

Disadvantages:

- The cost to the Council would increase.
- This option would be a further draw on the Council's budget alongside already known increasing energy costs.
- This option has no impact on the route to net zero.
- The purchasing of REGOs does nothing to reduce demand for electricity.
- This option does not contribute to the Council's journey to net zero.
- This option includes electricity from biomass generation

#### 5.2 Option 2 – Purchase Clean Renewable for Business option from EDF

Advantages:

- This would be a continuation of the Council procuring REGO's for its electricity supply.
- This would enable the Council to declare that its electricity is generated from renewable sources for its market-based emissions.
- This option does not include biomass generation

Disadvantages:

- The cost to the Council would increase.
- This option would be a further draw on the Council's budget

alongside already known increasing energy costs.

- This option has no impact on the route to net zero.
- The purchasing of REGOs does nothing to reduce demand for electricity.
- This option does not contribute to the Council's journey to net zero.

### 5.3 Option 3 – Purchase the Zero Carbon for Business option from EDF.

Advantages:

- The cost of this option is lower than that for renewable energy - £52,198.43
- The Council will be able to declare that its electricity is generated by zero carbon generation for its market-based emissions.

Disadvantages:

- The Council will be unable to declare that its electricity is generated by renewable technologies for its market-based emissions.
- This option is based on nuclear energy generation which is subject to some controversy regarding the storage of nuclear waste produced by this method of electricity generation.
- This option has no local impact on the route to net zero.
- This option does not contribute to the Council's journey to net zero.

### 5.4 Option 4 – Purchase the Blended Zero Carbon for Business option from EDF.

Advantages:

- This would enable the Council to declare that its 50% of its electricity is generated from renewable sources for its market-based emissions and that the remaining 50% was from zero carbon generation.

Disadvantages:

- The cost to the Council would increase.
- This option would be a further draw on the Council's budget alongside already known increasing energy costs.
- This option has no impact on the route to net zero.
- This would involve the purchasing of REGOs which does nothing to

reduce demand for electricity.

## 5.5 Option 5 – Purchase of Select Renewables option from EDF.

### Advantages:

- This would be a continuation of the Council procuring REGO's for its electricity supply.
- This would enable the Council to declare that its electricity is generated from specified renewable sources for its market-based emissions.

### Disadvantages:

- The cost to the Council would increase, this is the most expensive option available.
- This option would be a further draw on the Council's budget alongside already known increasing energy costs.
- This option has no impact on the route to net zero.
- This would involve the purchasing of REGOs which does nothing to reduce demand for electricity

## 6. REASONS FOR RECOMMENDATIONS

- 6.1 There will be a cost avoidance for the year 2023/24 of **£287,091** against the Clean Renewable option, **£198,354** cost avoidance against the Renewable for Business option or **£417,587** against the Select Renewable option.

The purchasing of REGOs has no effect on the Council's route to net zero.

The Council intend on allocating the £40k a year previously spent on REGOs internally to support the Council's local renewable energy and climate change projects. The £40k will be deployed on building a comprehensive communications and engagement package that will allow communities and organisations to learn about and access specific renewable energy funding and investment opportunities. Officers will work with Local Area Committees, businesses and community organisations to allocate SCC climate resources.