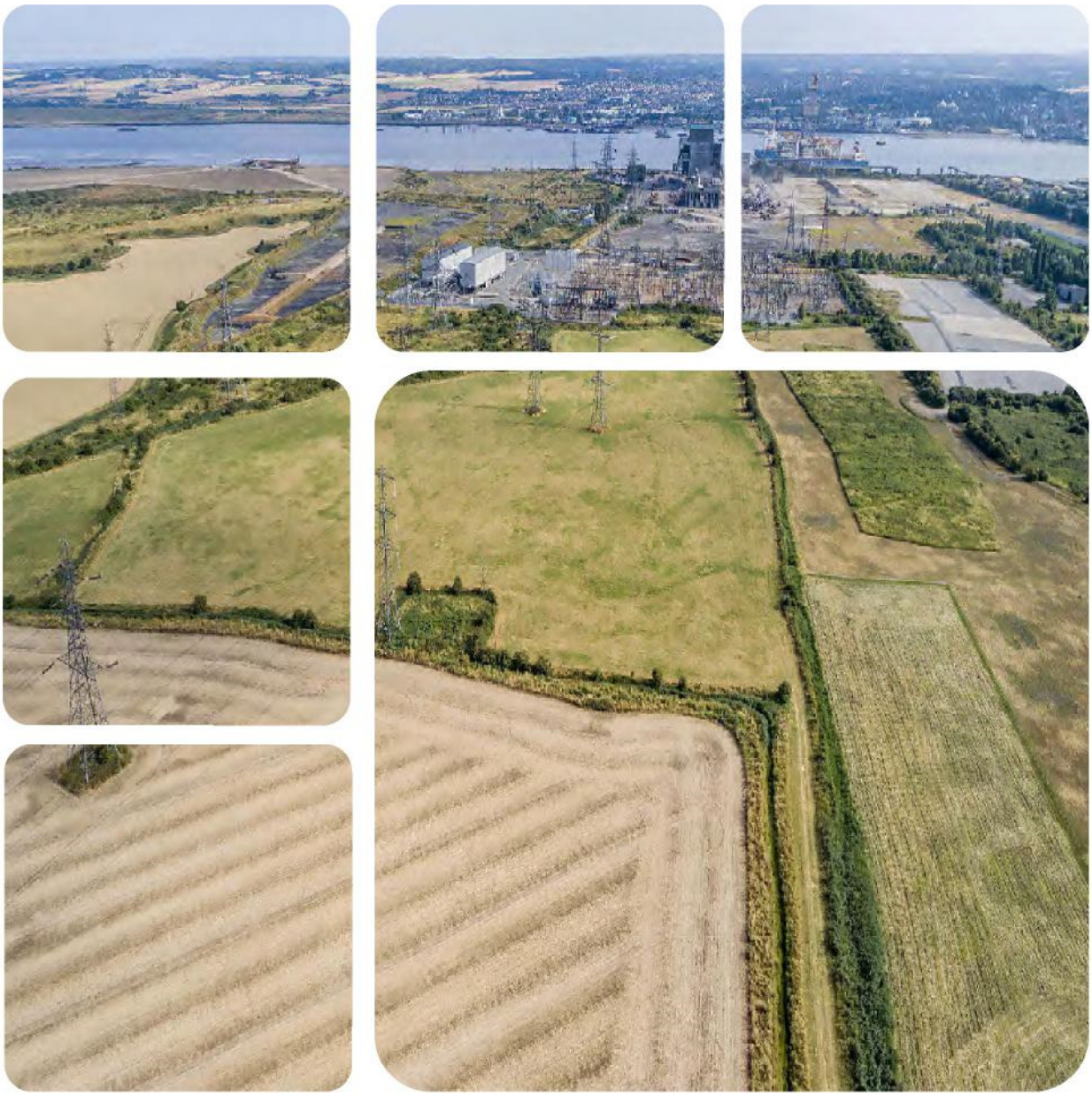
Consultation Report

Appendix 8: Consultation Responses and Continuing Consultation

Thurrock Flexible Generation Plant

Application document number A5.1.8



Appendix 8.5

Email from the Applicant to the Environment Agency, 1st April 2020

To: Abbott, Pat <Pat.Abbott@environment-agency.gov.uk>
Subject: FW: Discussion with Pat Abbott

'As you may know, to our surprise PINS has not accepted the application for examination. They have explained that this is due to advice from the Environment Agency to PINS that applicants must use climate change allowances for flood risk in planning that reflect CP18 projections. PINS has told us that we had not explained our approach to using the tidal breach modelling in the 2018 Thurrock SFRA clearly enough or been clear enough about our consultation with you and your approval of that approach in December last year.

We are going to do the following [technical detail below] *in order to ensure that the CP18 projections have been fully and conservatively considered in the flood risk assessment.*

Could you confirm that you agree with that approach?'

Tidal Flood Risk

1. As previously discussed, the tidal flood risk assessment in the application used the results of tidal flood defence breach hydraulic modelling in the Thurrock SFRA 2018 to inform flood-resilient design to mitigate risk should the existing flood defences protecting the application site be breached.
2. The SFRA and supporting hydraulic modelling indicated that the medium emissions scenario 95th percentile projections from UKCP09 were applied to generate the extreme water levels with allowances for sea level rise for the 2116 scenarios. The report references the GOV.UK website (https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances) which at the time presented the following table of potential sea level rises:

Area of England	1990 to 2025	2026 to 2055	2056 to 2085	2086 to 2115	Cumulative rise 1990 to 2115 (metres)
East, East Midlands, London, South East	4 (140 mm)	8.5 (255 mm)	12 (360 mm)	15 (450 mm)	1.21 m

Figures refer to rise per year; the cumulative total in each period and in total is presented in the brackets and final column.

3. Subsequently, on the 17th December 2019 climate change sea level allowance where updated taking into account revised climate modelling projections in UKCP18. The updated sea level rise allowances are very similar to the previous allowances for the comparable 'Higher central' scenario but now provide an 'Upper end' scenario with possible greater sea level rise. The new table for the South East region, including the River Thames is presented below.

Area of England	Scenario	2000 to 2035 (mm)	2036 to 2065 (mm)	2066 to 2095 (mm)	2096 to 2125 (mm)	Cumulative rise 2000 to 2125 (metres)
South East	Higher central	5.7 (200)	8.7 (261)	11.6 (348)	13.1 (393)	1.2
	Upper end	6.9 (242)	11.3 (339)	15.8 (474)	18.2 (546)	1.6

Figures refer to rise per year; the cumulative total in each period and in total is presented in the brackets and final column.

4. The maximum variation in projected sea level rise between the current and previous guidance is 0.39 m or 390 mm.
5. In order to achieve a resilience level that accounts for the Upper End sea level climate change allowances (1.6 m) up to 2115 the applicant proposes to apply +390mm to the proposed design flood resilience level for critical infrastructure on the site.
6. This represents resilience to a worst-case increase in potential flood depth, which we consider to be a proportionate and conservative approach in the absence of an up-to-date breach model taking into account UKCP18 available from the Thurrock Strategic Flood Risk Assessment for planning.
7. The Flood Risk Assessment, ES Project Description and Conceptual Drainage Strategy will be updated to make reference to this resilience height for critical infrastructure to be applied in detailed design of the facility.

Regards,
Tom

Tom Dearing
Principal Environmental Consultant
RPS | Consulting UK & Ireland
6-7 Lovers Walk
Brighton, East Sussex BN1 6AH, United Kingdom
T +44 1273 546 800
D 17026 **M** 07514 924 749
E tom.dearing@rpsgroup.com

rpsgroup.com
LinkedIn | **Facebook** | **Instagram** | **YouTube**

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Appendix 8.6

Email Environment Agency to the Applicant, 9th April 2020

From: Abbott, Pat <Pat.Abbott@environment-agency.gov.uk>
Sent: 09 April 2020 05:04
To: Andrew Troup <atroup@stateraenergy.co.uk>
Subject: RE: Discussion with Pat Abbott

Hello Andrew

Hope you are okay. I am sorry its taken so long (Our IT issues remain the same) but I have heard back from our flood team, who are satisfied with the approach to the flooding issues for Thurrock regeneration power plant, their message is copied below.

Thanks

Pat

> I have spoken with both Sarah and Nicole and collectively we confirm that that their approach to allowing for UKCP18 climate change is acceptable given that this is a residual risk situation. The difference of 0.39m is similar to what we're seeing everywhere on the coast (0.31m difference for coastal 2018 modelling).
>
> We accept that their approach represents resilience to a worst-case increase in potential flood depth, which is considered to be a proportionate and conservative approach in the absence of an up-to-date breach model taking into account UKCP18 available from the Thurrock 2018 Strategic Flood Risk Assessment.

Pat Abbott | Sustainable Places Planning Advisor
Environment Agency | Iceni House, Cobham Road, Ipswich, Suffolk IP3 9JD

Pat.abbott@environment-agency.gov.uk

Tel: 0208 4748011

Please note as from 18 March 2020 until further notice, due to the Corona Virus restrictions I will be working away from the office. Replies may take slightly longer than usual.

Do your future plans have environmental issues or opportunities? Speak to us early!

If you are planning a new project or development, we want to work with you to make the process as smooth as possible. We offer a tailored advice service with an assigned project manager giving you detailed and timely specialist advice. Early engagement can improve subsequent planning and permitting applications to you and your clients benefit. More information can be found on our website here.

From: Andrew Troup [mailto:atroup@stateraenergy.co.uk]
Sent: 01 April 2020 16:12

Appendix 8.7

Email from the Applicant to Gravesham Borough Council, 4th May 2020

From: Andrew Troup [mailto:atroup@stateraenergy.co.uk]
Sent: 04 May 2020 11:45
To: Chadwick, Tony
Subject: Thurrock Power DCO

Tony, as discussed Gravesham's comments on the PEIR (attached for reference) focused on:

- Need/alternatives and green belt VSC case
- Potential for noise impacts south of the river
- Landscape and heritage impacts, including views from the south of the river and the cumulative effect with Tilbury2 and LTC.

In the submitted DCO application (shortly to be resubmitted) we made the following changes set out below. I have provided references in the application docs for your convenience to be viewed once the application is accepted:

- Thoroughly evidenced the Very Special Circumstances for this development and provided details of the extensive site selection and screening exercise undertaken by Thurrock Power [this will be found application document A8.3: Statement of Case and Green Belt Statement]
- Included a representative noise-sensitive receptor location in Gravesend (Clarendon Road) in the noise assessment and extended the noise contour figures to a scale that shows Gravesend and the south bank of the river [see figures and impact assessment in Vol 3, Chapter 11]
- Following discussion with your landscape officerIncluded a number of viewpoint photography locations south of the river, both on the bank and on higher ground further south and selected four for wireline visualisations. Between the PEIR and final ES we responded to consultation comments from Gravesham, Historic England and Essex County Council among others and took additional viewpoint photography at locations representing sensitive heritage settings and also additional winter photography. Cumulative effects with the two NSIPs have also been thoroughly assessed and new cumulative wireline visualisations were produced. [See Figure 2.2 and Figures 4.30-4.46 in Vol 3, Chapter 6; consultation responses in Table 1.3 of that chapter; and Vol 4, Chapter 19 inc. Figures 1.2 to 1.13].

As I explained PINs has asked us to produce 3D photomontages. We will do 11 of these including viewpoints 22 and 24 in Gravesham. 22 is within Gravesend and 24 is down on the river bank path just east of Gravesend.

Many thanks, Andrew.

Andrew Troup
Director | Statera Energy Limited
1st Floor | 145 Kensington Church Street
London | W8 7LP
Mob: 07778027385
Email: atroup@stateraenergy.co.uk
www.stateraenergy.co.uk

Appendix 8.8

Email Gravesham Borough Council to the Applicant, 5th May 2020

From: Chadwick, Tony <tony.chadwick@gravesham.gov.uk>
Sent: 05 May 2020 16:31
To: Andrew Troup <atroup@stateraenergy.co.uk>
Subject: RE: Thurrock Power DCO

Andrew

Thank you for confirming that the additional work is being undertaken to respond to comments by Gravesham in its section 42 responses and the meeting we held in November 2019.
In addition I note that you are responding to comments made recently by PINS.
We have not seen the detailed information in the DCO but when it is available, we will examine it and make our representations as appropriate.

Tony Chadwick
Principal Transport and NSIP Project Manager
Planning & Regeneration Services
Address: Gravesham Borough Council, Civic Centre, Gravesend, Kent DA12 1AU
Telephone: 01474 337404 Fax: 01474 337944 Mobile: 07769 602739
New mobile: 07934 280717
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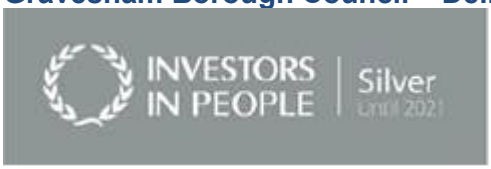

Appendix 8.9

Email Essex County Council to the Applicant, 20th April 2020

From: Lee Sencier, Surface Water Engineer <Lee.Sencier@essex.gov.uk>
Sent: 20 April 2020 09:49
To: Andrew Troup <atroup@stateraenergy.co.uk>
Cc: Suds <Suds@essex.gov.uk>
Subject: Thurrock Flexible Generating Plant DCO

Good morning Andrew,

Apologies for the delay in getting back to you on this matter.

As discussed, it looks like the primary source of flood risk relating to your query is Coastal/ Fluvial, as such the Environment Agency would be best placed to advise further on this matter.

I understand you have spoken to my colleague Tim Simpson in the past about the LLFA's requirements on Surface Water, Groundwater and Ordinary Watercourse flooding and this is fine, however our requirements have recently changed so I have provided you with a letter attached, which outlines our most up to date requirements.

I hope this information is of some assistance and if there are any queries please feel free to contact me.

Yours sincerely,

Lee Sencier
Acting Development and Flood Risk Manager

Flood and Water Management

Essex County Council | E3 County Hall | Chelmsford | CM1 1QH
Telephone: 03330 136741 | **Email:** lee.sencier@essex.gov.uk

Appendix 8.10

Guidance from Essex County Council, 20th April 2020

Essex County Council
Development and Flood Risk
Waste & Environment
C426 County Hall
Chelmsford
Essex CM1 1QH

Andrew Troup

Date: 20th April 2020

Dear Mr Troup,

Pre-application Response – Thurrock Flexible Generating Plant DCO

Thank you for contacting us for application advice which provides Essex County Council (ECC) with the opportunity to assess and advise on the proposed surface water drainage strategy for the aforementioned planning application.

As the Lead Local Flood Authority (LLFA) ECC provides advice on SuDS schemes for major developments. ECC have been statutory consultee on surface water since the 15th April 2015.

In providing advice this Council looks to ensure sustainable drainage proposals comply with the required standards as set out in the following documents:

- Non-statutory technical standards for sustainable drainage systems
- Essex County Council's (ECC's) adopted Sustainable Drainage Systems Design Guide
- The CIRIA SuDS Manual (C753)
- BS8582 Code of practice for surface water management for development sites.

Lead Local Flood Authority position

After reviewing the submitted documents please see a summary of our comments below:

Flood Risk Assessment

A flood risk assessment should consider all form of flood risk.

These include:

- Flooding from the sea or tidal flooding;
- Flooding from land;
- Flooding from groundwater;
- Flooding from sewers; and
- Flooding from reservoirs, canals, and other artificial sources.

It should be considered how any flood risk will interact with the development and drainage scheme.

Our records indicate that the development is not within a Critical Drainage Area (CDA), however it does fall within the Thurrock Local Flood Risk Management Strategy (2015) Study Area. The Risk of Flooding from Surface Water (RoFfSW) maps indicate the site to be at varying degrees of Surface Water flood Risk.

Run off Destinations

Surface water run- off should be disposed of in line with the discharge hierarchy and should be investigated in the below order:

- Discharge via infiltration
- Discharge to a watercourse
- Discharge to a sewer

If infiltration is proposed, groundwater and infiltration testing in line with the BRE 365 testing procedure and methods found in Chapter 25.3 of The CIRIA SuDS Manual C753 will need to be submitted to show that this is feasible. Any infiltration storage devices should have 1m between the base of the storage device and seasonal high groundwater level. If infiltration is unlikely to be possible at the site due to ground conditions, then we will still require high level ground investigations to be carried out in order to prove that this is not a viable option.

If discharge to a watercourse or sewer is proposed, it must be ensured that the site discharges at a suitable rate and any appropriate permissions are in place.

Where the discharge is to a watercourse, the outfall should be above the 1 in 100 plus climate change level or alternatively the effect of surcharging of the outfall should be modelled and appropriate mitigation measures should be put in place.

Peak Flow

If following the discharge hierarchy infiltration is not found to be feasible on site, discharge from the site should be limited to the Greenfield 1 in 1 year rate.

Alternatively, surface water can be discharged at equivalent Greenfield rates with the inclusion of long-term storage. Information would need to be provided about the values used to calculate this rate and these would be reviewed on submission.

Please also note that we do not accept a flat rate of 5l/s discharging from the site if the Greenfield 1 in1 year rate is below 5l/s. Historically 5l/s was applied to an outlet where Qbar was lower than 5l/s, as most devices would require an outlet orifice size smaller than 50mm, which would increase the susceptibility of blockage and failure.

There are now vortex flow control devices which can be designed to a discharge at 1l/s, with 600mm shallow design head and still provide a more than 50mm orifice

diameter. Furthermore, it is expected that appropriate measure should be put in place to remove materials that are likely to cause blockage before they reach the flow control device.

Storage requirements

It should be demonstrated how surface water up to the 1 in 100 year plus climate change event is managed within the development.

The Environment Agency updated their climate change allowance in February 2016 and we require the design to be to the upper end allowance (i.e. 40%), unless this can be shown to make the development unviable, in which case the central allowance should be used with a sensitivity analysis carried out for the effects of the upper allowance. Please see the following link for more information on revised climate change allowances: https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances

Details regarding the half-drain time of any storage device should also be submitted for review which, in this instance could be demonstrated by the 1 in 30yr +CC RP, followed by the 1 in 10yr RP storm event as necessary.

As part of the planning application, detailed calculations considering a range of summer and winter storms should be submitted for storage requirements.

Storage features should be located outside of the 1 in 100 year plus climate change overland exceedance flood level, however where this is not possible it must be demonstrated that the storage feature will be sized appropriately to accommodate surface water from the site, along with any additional flows that may enter.

Water Quality

There should be treatment in line with Chapter 26 of the CIRIA SuDS Manual C753 for all areas of the site.

Whether the site is considered a medium or low pollutant risk depends on the traffic movements expected on the development. If the development is expected to have over 300 traffic movements then the medium pollution indices should be applied whereas the low pollution indices should be applied if less than 300 daily traffic movements are expected.

Considering impact of water pollution, in line with Paragraph 170 of the NPPF, priority should be given to SuDS and all SuDS options should be explored. If proprietary features are used however, it should be shown how these features will provide enough treatment in terms of total suspended solids, hydrocarbons and metals in line with chapter 26.

It should be noted that trapped gullies and catch pits are generally not considered appropriate forms of pollution mitigation because of the high risk of remobilisation of pollutants using this method of treatment.

Residual Flood Risk

As part of any planning application it should be ensured that surface water is managed so that there is no flooding in a 1 in 30 year storm event and no internal flooding in a 1 in 100 year, inclusive of climate change storm event. Detail should also be given with regards to exceedance routes above the critical 1 in 100 year, inclusive of climate change storm event, which should be directed away from properties.

Maintenance and Adoption

The on-going maintenance of any features will be necessary to ensure that flooding does not occur due to failure of components. A maintenance plan should be provided as part of the planning application process detailing the maintenance activities and frequencies as well as who will be maintaining the system.

Additional comments:

At some point during the planning stage, you would need to show how surface water will be managed during the construction phase.

You would also need to demonstrate how surface water impacts on the drainage system before and after development, and how the new development improves existing land drainage or surface water management.

Under Section 23 of the Land Drainage act (1991) any proposed structure that impacts on the cross-sectional area of a watercourse first requires Ordinary Watercourse consent to be sought from Essex County Council. Such applications are separate from and are required in addition to the planning process. Please contact Floods@essex.gov.uk for further information.

The LLFA would expect the following documentation to be submitted at Full Planning Application stage:

- Flood Risk Assessment
- Drainage strategy
- Preliminary ground investigation report, to show potential infiltration viability
- Evidence of third-party agreement to discharge
- Detailed storage calculations
- Detailed drainage network calculations
- Detailed drainage layout including location of features, exceedance routes, finished floor levels, discharge locations and rates

- Full structural, hydraulic and ground investigations, including detailed infiltration testing in line with BRE365, groundwater level

This is not an exhaustive list and other information may need to be submitted alongside the application, pending on the site-specific requirements.

Please note:

The advice provided by the Council's Officers is informal opinion only and is made without prejudice to any formal decision that may be given in the event of an application being submitted.

In particular, any advice given will not constitute a formal response or recommendation of the County Council. Any views of opinions expressed are in good faith and to the best of ability, without prejudice to the formal consideration of any application, which will ultimately be decided by the Local Planning Authority. The County Council cannot guarantee that new issues will not be raised following submission of a planning application and consultation upon it.

Officers cannot give guarantees about the final formal decision that will be made on planning or related applications. However the advice contained within the written response will be considered by officers when considering any future planning application. This is subject to the proviso that circumstances and information may change or come to light that could alter the position. It should be noted that the weight given to pre-application advice will change if new material considerations arise.

Whilst we have no further comments at this stage, we strongly recommend you engage in pre-application consultation with any other organisations that maybe relevant to the proposed drainage strategy to avoid potential delays at the application stage. If you have any queries about any advice we have given please do not hesitate to contact us.

Yours sincerely,

Lee Sencier
Acting Development and Flood Risk Manager
Team: Development and Flood Risk
Service: Waste & Environment
Essex County Council

Internet: www.essex.gov.uk
Email: suds@essex.gov.uk

Appendix 8.11

Minutes of Microsoft Teams meeting Applicant and Thurrock Borough Council, 15th April 2020

Thurrock Council Meeting

Microsoft Teams Call - 10.45am on Wednesday 15th April 2020

Present: Chris Purvis (CP) – Principal Planner (Major Applications), Matt Gallagher (MG) -Principal Planner and Andrew Troup (AT) – Thurrock Power.

CP had seen press article on non-acceptance.

AT told CP and MG that the Thurrock Power Application had not been accepted by PINs. AT explained that PINS had requested 3D visualisation and updated flood modelling. PINs main interest had been a request that the applicant take account of the UKCP 2018 data.

CP and MG confirmed that the LPA will review the content of the submission when the application for a DCO is accepted by PINs. For the flood modelling CP referred AT to Essex County Council and the Environment Agency for the updated flood data.

CP and MG said it would be useful to see the draft Requirements and AT said he would forward these to them for review.

AT advised CP and MG on the proposed resubmission date of w/c 18/05/2020 and agreed to keep them updated on any other changes.

Appendix 8.12

Email Thurrock Council to Applicant, 19th May 2020

Kirsty Cassie

From: Purvis, Chris <CPurvis@thurrock.gov.uk>
Sent: 19 May 2020 11:24
To: Andrew Troup
Subject: RE: TP DCO

Hi Andrew

The minutes seem an accurate a reflection of our discussion.

Regards

Chris Purvis I Major Applications Manager I Planning I Place Directorate
Thurrock Council, Civic Offices, New Road, Grays, Essex RM17 6SL
www.thurrock.gov.uk I My account Thurrock

Thurrock: an ambitious and collaborative community which is proud of its heritage and excited by its diverse opportunities and future

From: Andrew Troup <atroup@stateraenergy.co.uk>
Sent: 18 May 2020 16:40
To: Purvis, Chris <CPurvis@thurrock.gov.uk>
Subject: TP DCO

Chris, please confirm you are happy with these as a record. Andrew.

Andrew Troup
Director | Statera Energy Limited
1st Floor | 145 Kensington Church Street
London | W8 7LP
Mob: 07778027385
Email: atroup@stateraenergy.co.uk
www.stateraenergy.co.uk

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