Gas Transmission Charging Review

Fourth Technical Working Group Meeting

Ian Alexander, Debra Hawkin and
Patrick Taylor

20th August 2014

Contents

1 INTRODUCTION

Introduction

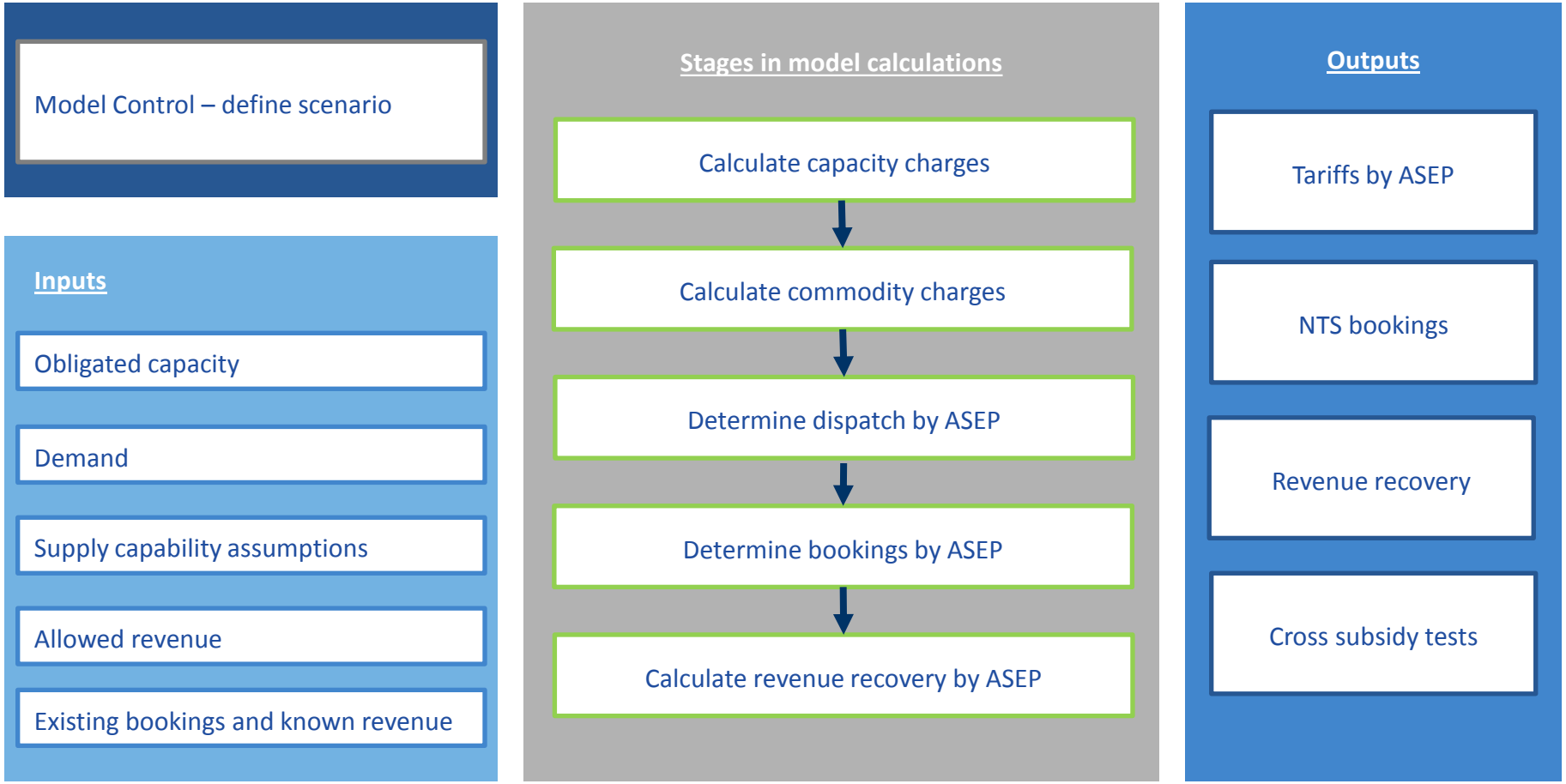
Purpose of today

1. **Presentation of initial runs from GTCR model and types of output produced by the model**
2. **Discuss key modelling assumptions which initial model results appear to be sensitive to**
3. **Final opportunity for the Technical Working Group to provide feedback to CEPA/TPA on modelling framework**

The model and its assumptions are still in development and so the results shared with the group should be viewed as illustrative at this stage

Overview of model framework

Model framework diagram



Overview of model framework

Control sheet

We are presenting results from these 3 scenarios today

Select scenario for model run >>>	2	0	1	2	3	4	5	6	7	8	9
Scenario name	Scenario 2	Base case	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Scenario 9
Year when new tariff regime comes into effect?	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018
Floating tariff regime?	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Form of tariff regime at Non-CAM points	9	1	9	9	1	11	11	11	11	11	11
Asymmetric tariff regime at Bacton (CAM)?	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Form of asymmetric tariff regime at CAM (Bacton)	9	1	9	9	9	11	11	11	11	11	11
Does floating regime apply to existing capacity bookings?	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Inflation adjustment to existing tariffs?	Yes	No	Yes	Yes	Yes	No	No	No	No	No	No
Form of inflation adjustment to existing tariffs	2	1	2	2	3	1	1	1	1	1	1
Capacity Product Multiplier scenario	3	1	2	3	2	1	1	1	1	1	1
Obligated (input 1) or forecasts (input 2) capacity used in floating adjustments?	2	2	2	2	2	2	2	2	2	2	2
Allowed revenue to be recovered from entry	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Static or dynamic run of the model?	Dynamic	Dynamic	Dynamic	Dynamic	Dynamic	Static	Static	Static	Static	Static	Static
Future Energy Scenario	Slow Progression	Slow Progression	Slow Progression	Slow Progression	Slow Progression	Slow Progression	Slow Progression	Slow Progression	Slow Progression	Slow Progression	Slow Progression
Start of BBL reverse flow capability	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031
Treatment of capacity charge in IC arbitrage (1= sunk cost; 2= transaction cost)	1	1	1	1	1	1	1	1	1	1	1

Description of floating tariff regime options

Cover | Control_Step 1 | Control_Step 2 | Control_Step 3 | Impact Assessment >>> | ...

2 ILLUSTRATION OF MODEL RESULTS

Illustration of Model Results

We have modelled three scenarios (including a Base Case) …

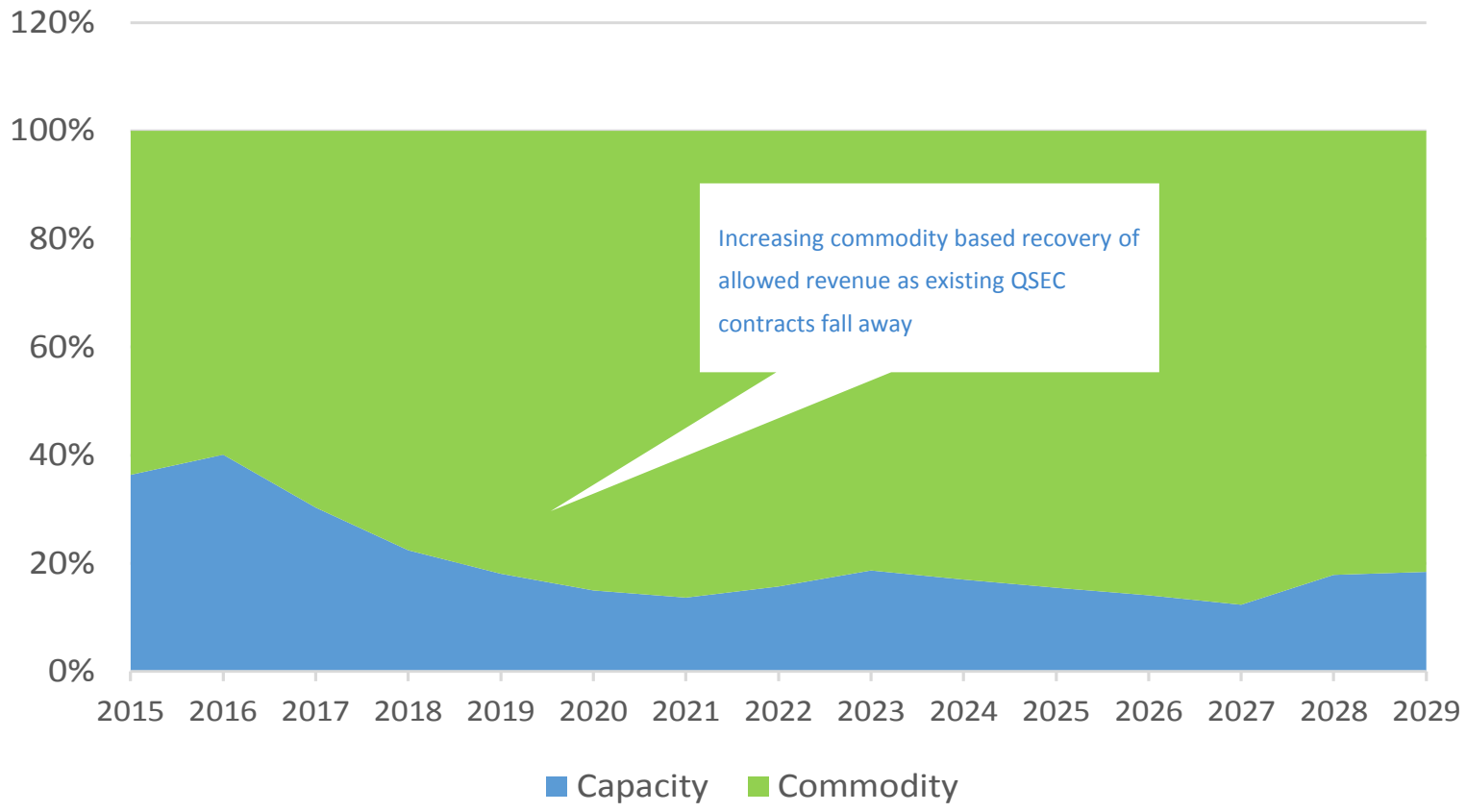
	Base Case	Scenario 1	Scenario 3
Description	Current charging regime – combination of capacity and commodity charges	Applies a combination of all GTCR policy options, including changes to multipliers, indexation and floating	As Scenario 1 but floating regime applies only to CAM points
Inflation indexation		Prices are indexed from start of financial year 2014/15	Prices are indexed from start of financial year 2014/15
Floating tariff methodology	Not applicable	Fixed p/KWh/day secondary adjustment applies to all capacity products from 2017 (new and existing capacity) calculated to account for ST product discounts and forecast capacity bookings	BACTON (CAM point) tariff is calculated under same principles as Scenario 1 but Non-CAM ASEP tariffs calculated under same principles as Base Case
Multipliers	QSEC – 1.0; MSEC – 1.0; DADSEC – 0.66; WDDSEC – 0; DISEC – 0	QSEC – 1.0; MSEC – 0.66; DADSEC – 0.66; WDDSEC – 0.66; DISEC – 0.66	As Scenario 1
NGG scenario used in modelling	Slow Progression	Slow Progression	Slow Progression

… to illustrate the model outputs and to test sensitivity of results to key assumptions

2a ILLUSTRATIVE BASE CASE RESULTS

Base case results

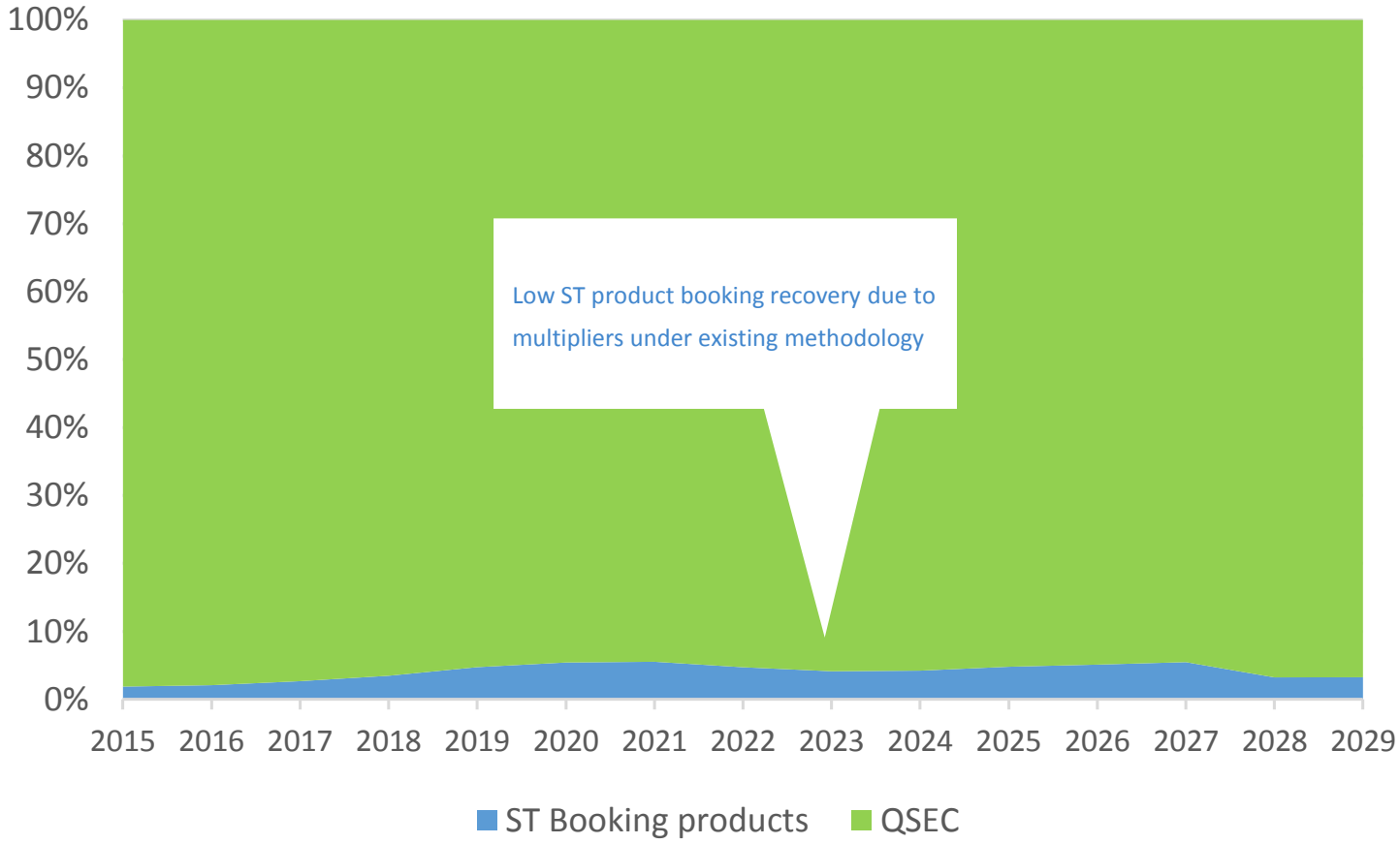
Capacity – commodity split in TO allowed revenue recovery*



**Note: Years shown on the graph represent financial year ending (e.g. 2015 represents financial year 2014/15)*

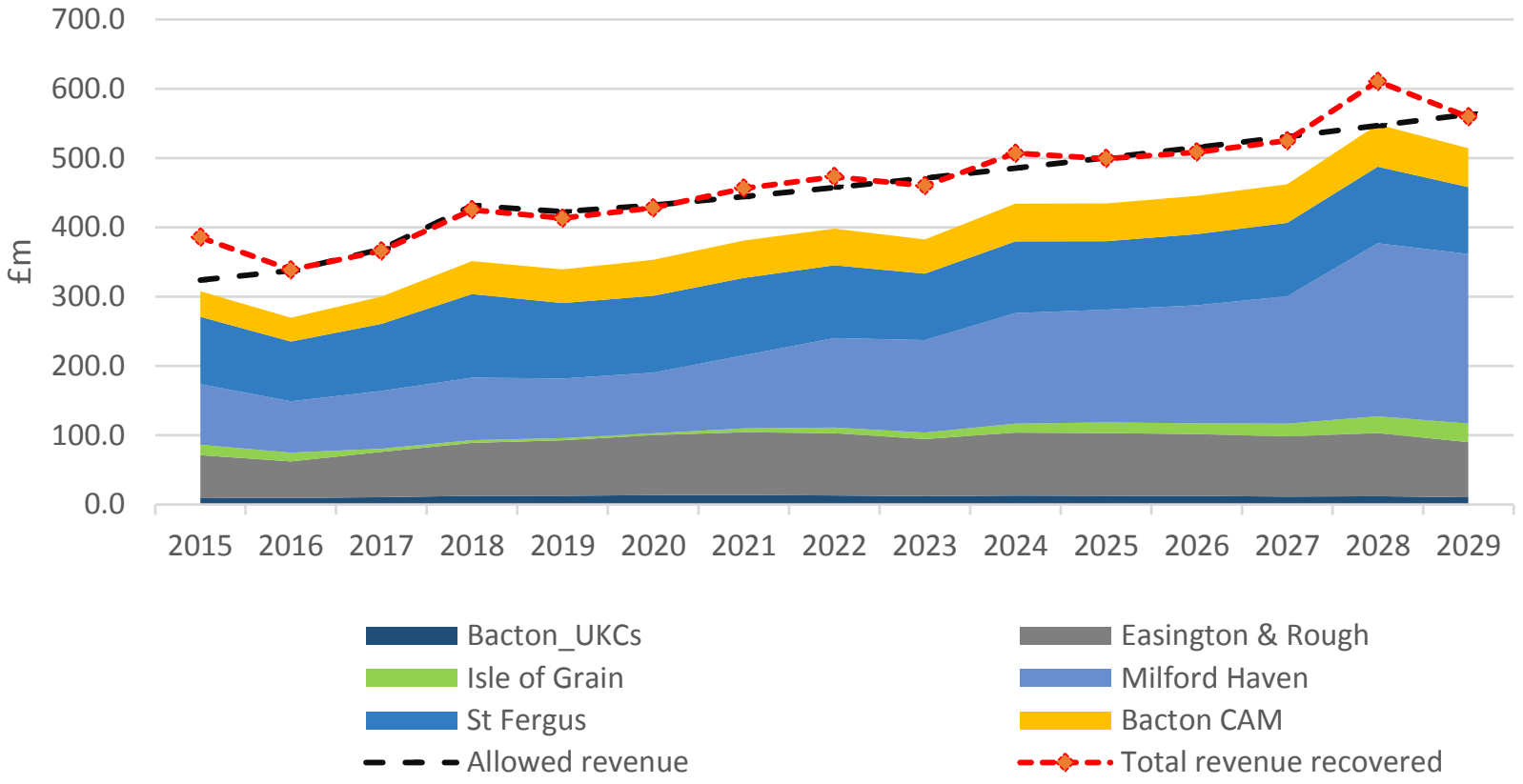
Base case results

Capacity revenue recovery by booking



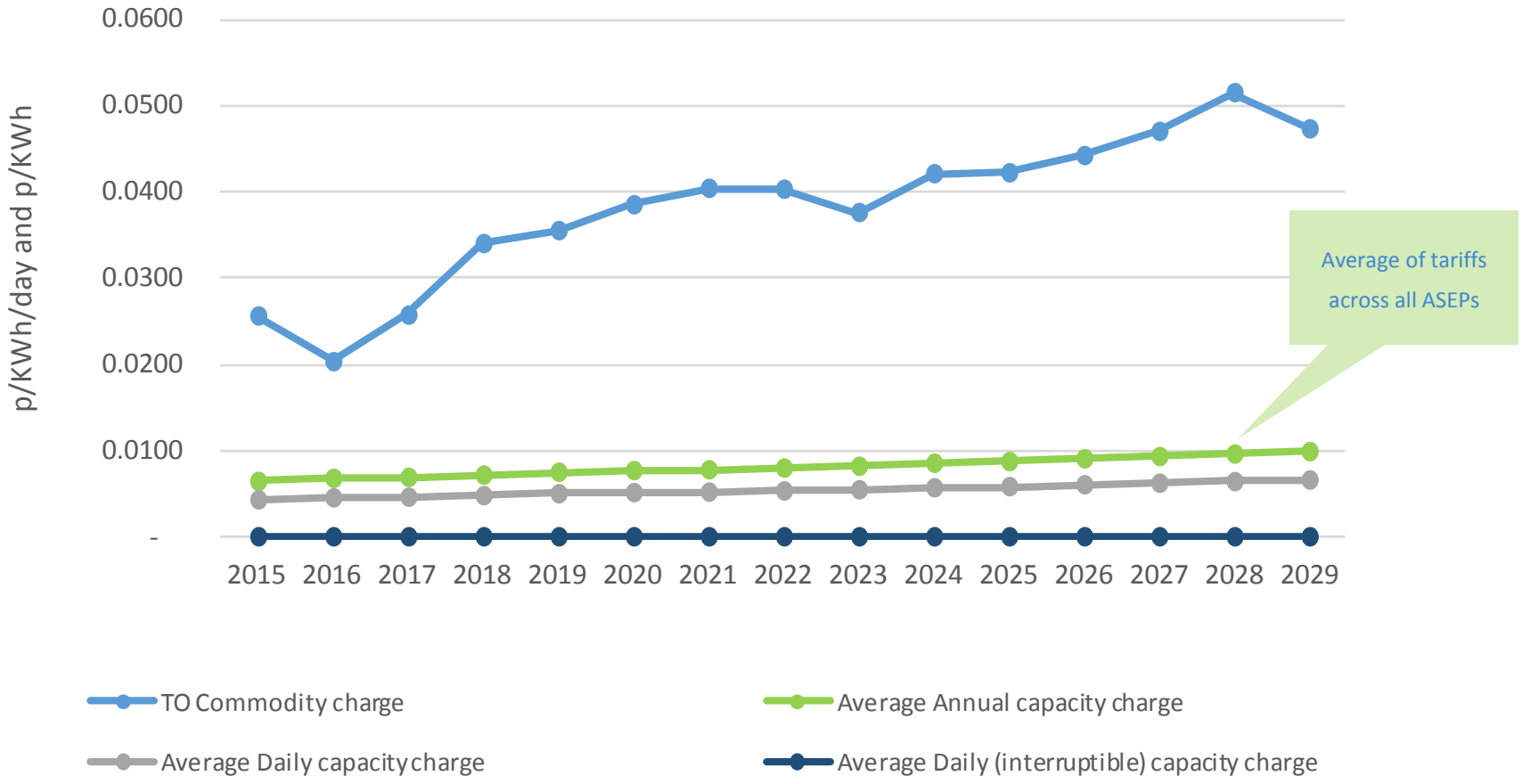
Base case results

Total TO capacity and commodity revenue recovery by selection of ASEPs



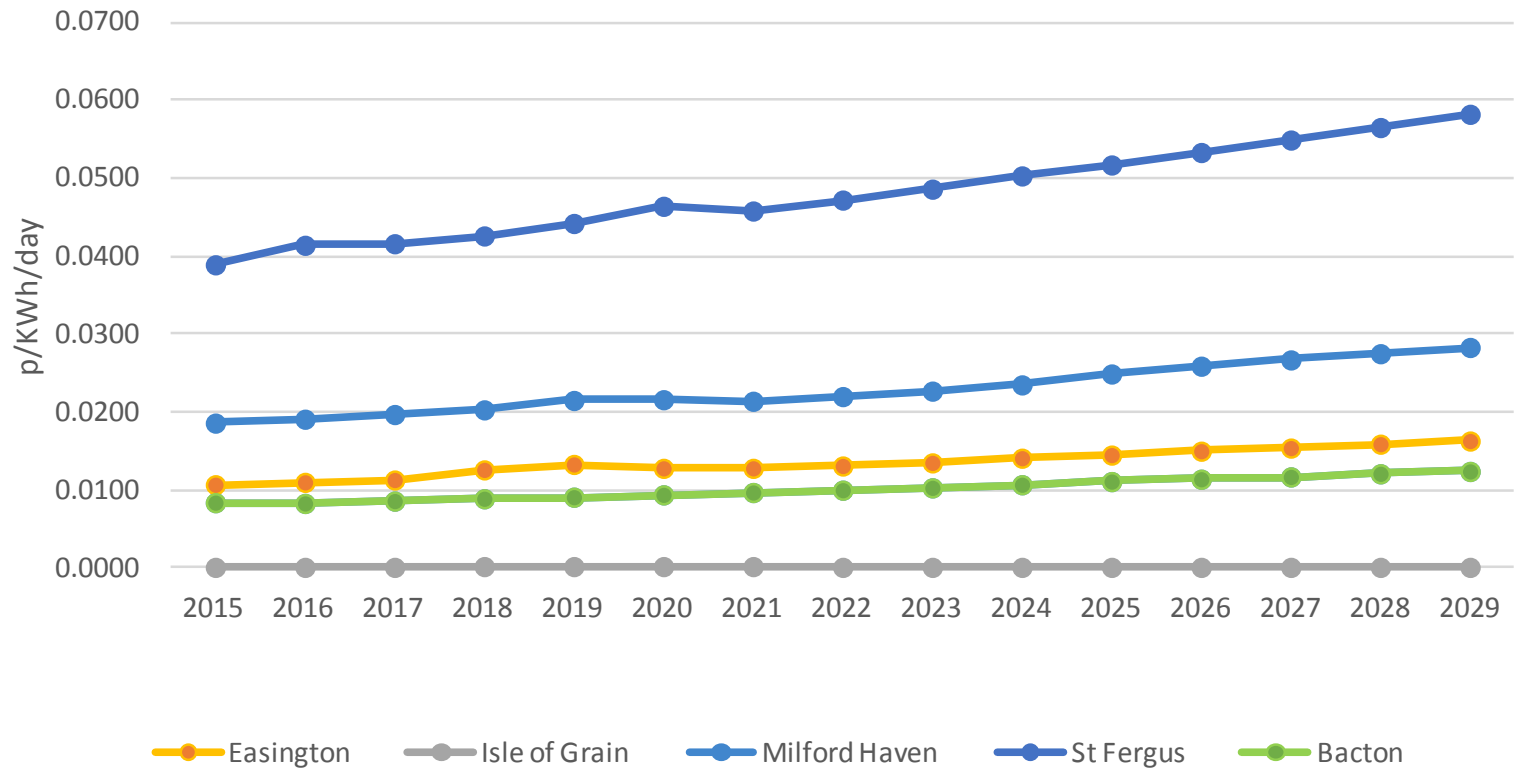
Base case results

NTS tariffs – NTS averages



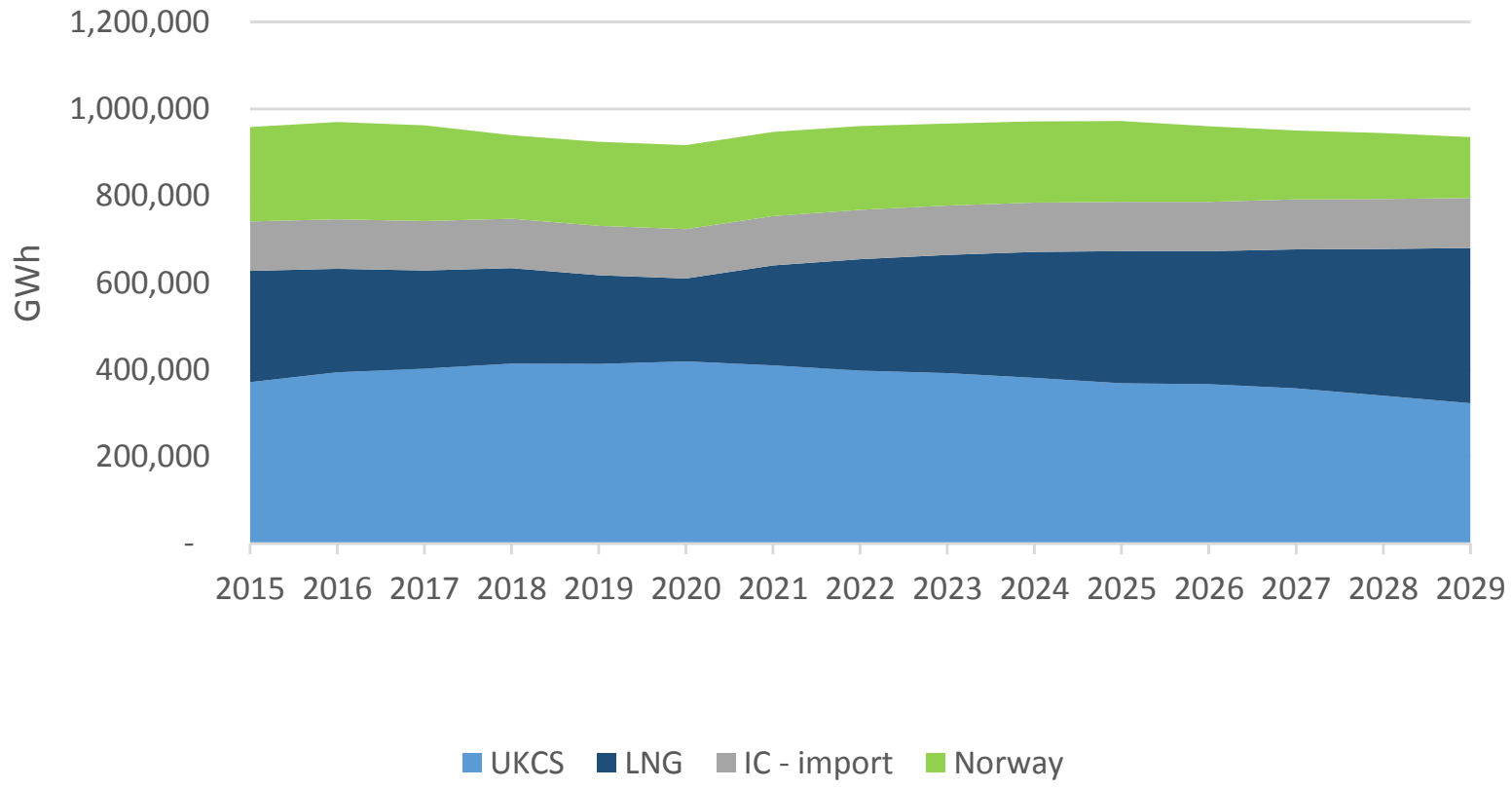
Base case results

NTS Annual tariffs – subset of ASEPs



Base case results

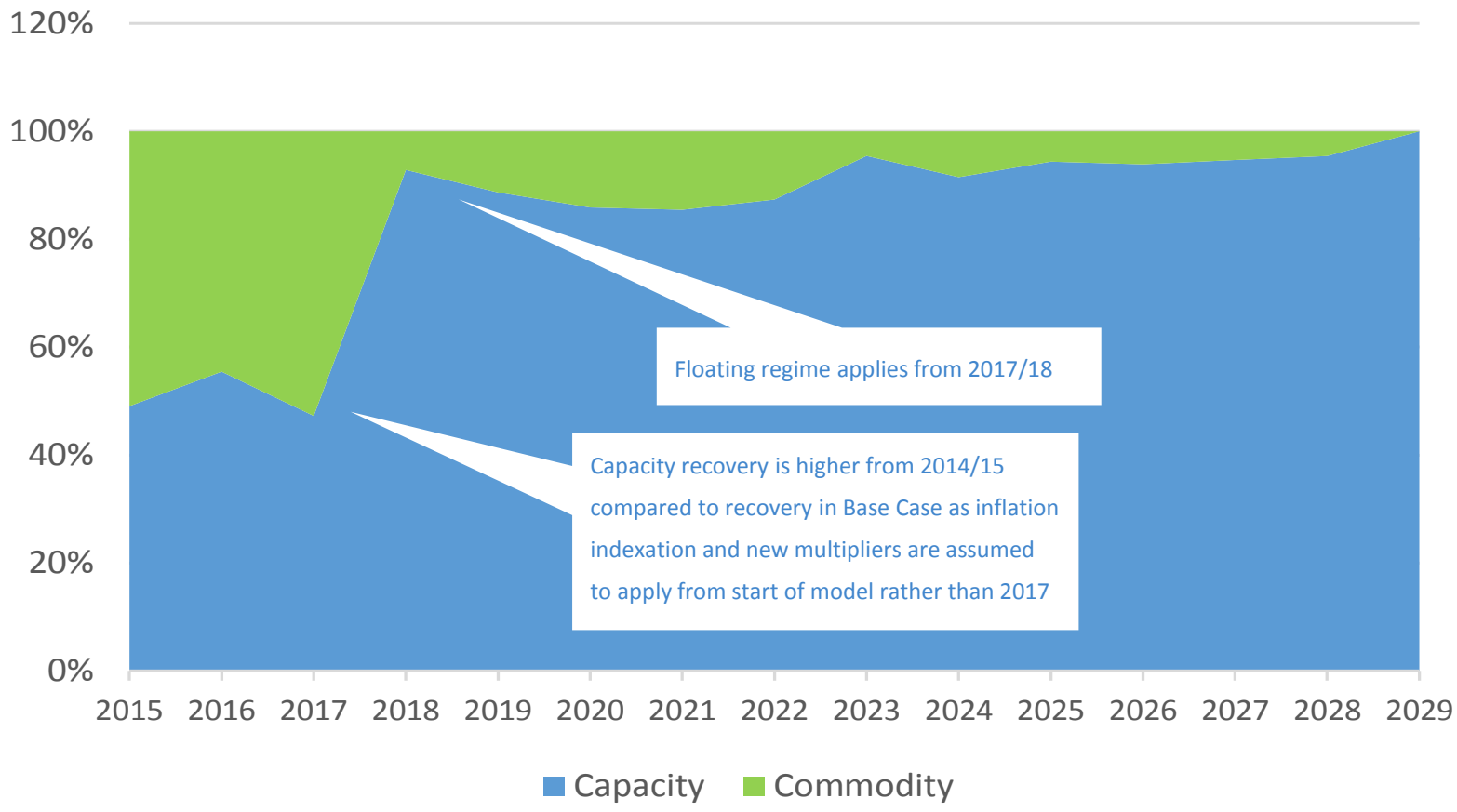
Annual flows



2b ILLUSTRATIVE SCENARIO 1 RESULTS

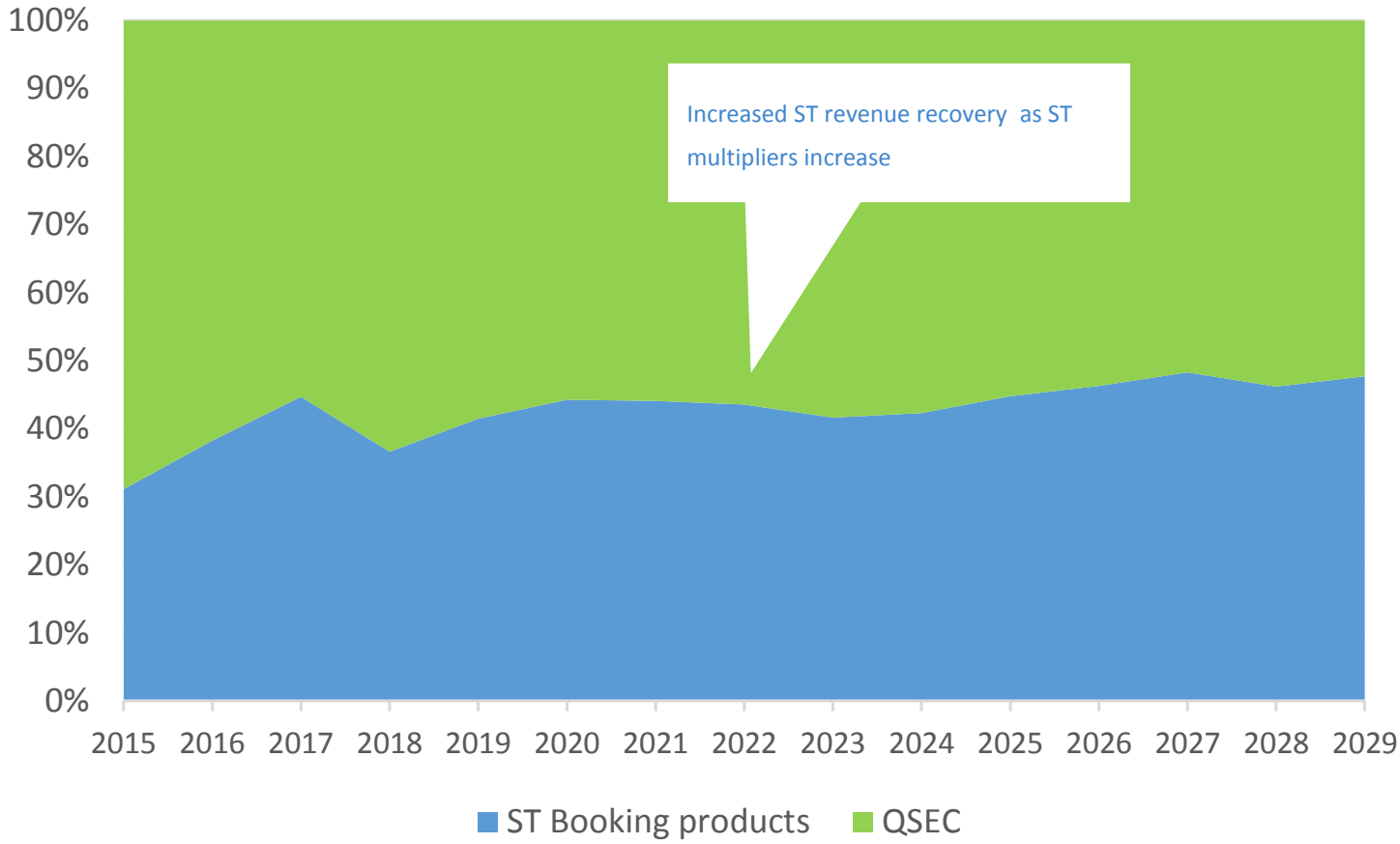
Scenario 1 results

Capacity – Commodity split



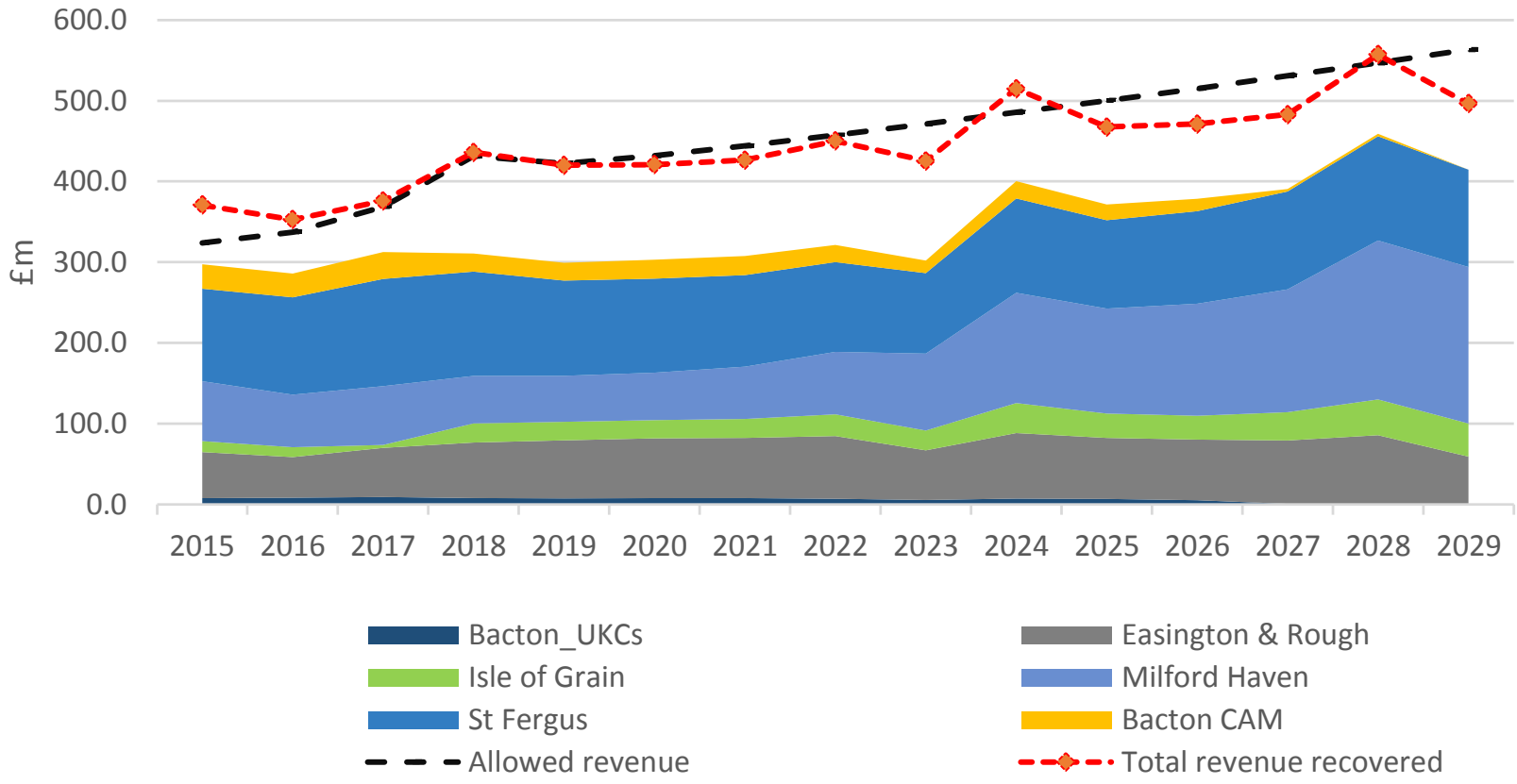
Scenario 1 results

Capacity revenue recovery by booking



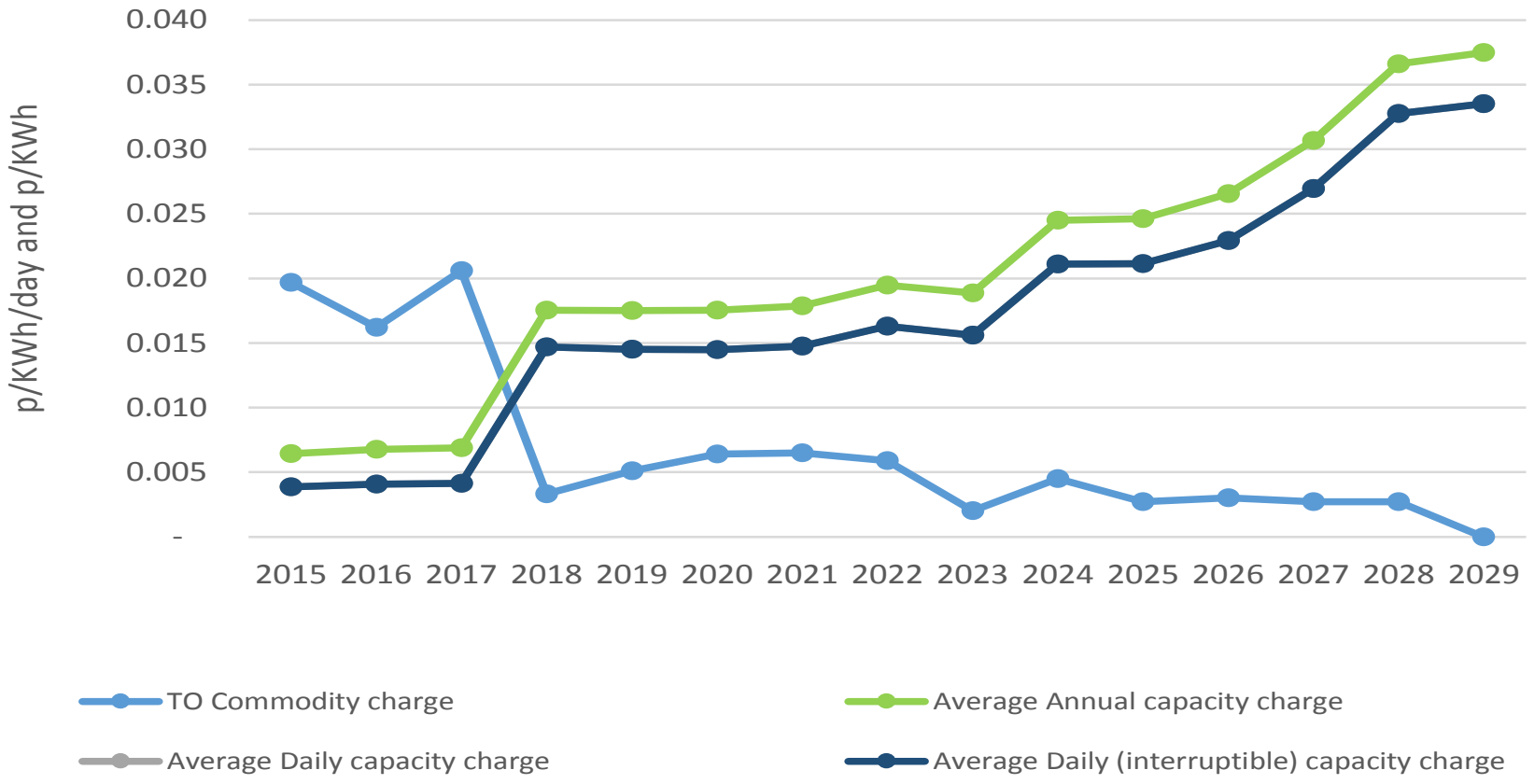
Scenario 1 results

Revenue recovery by selection of ASEPs



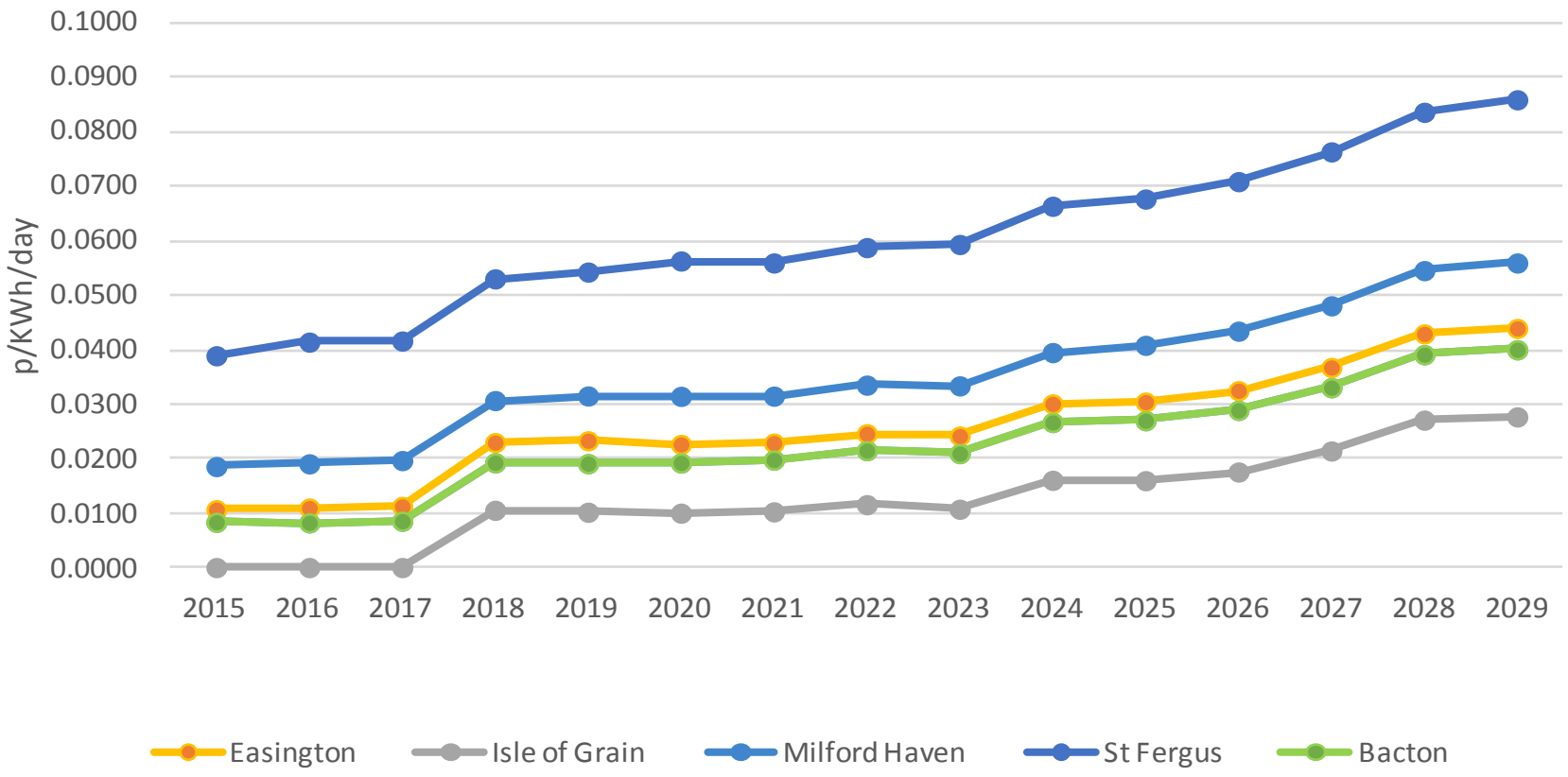
Scenario 1 results

NTS tariffs – NTS averages



Scenario 1 results

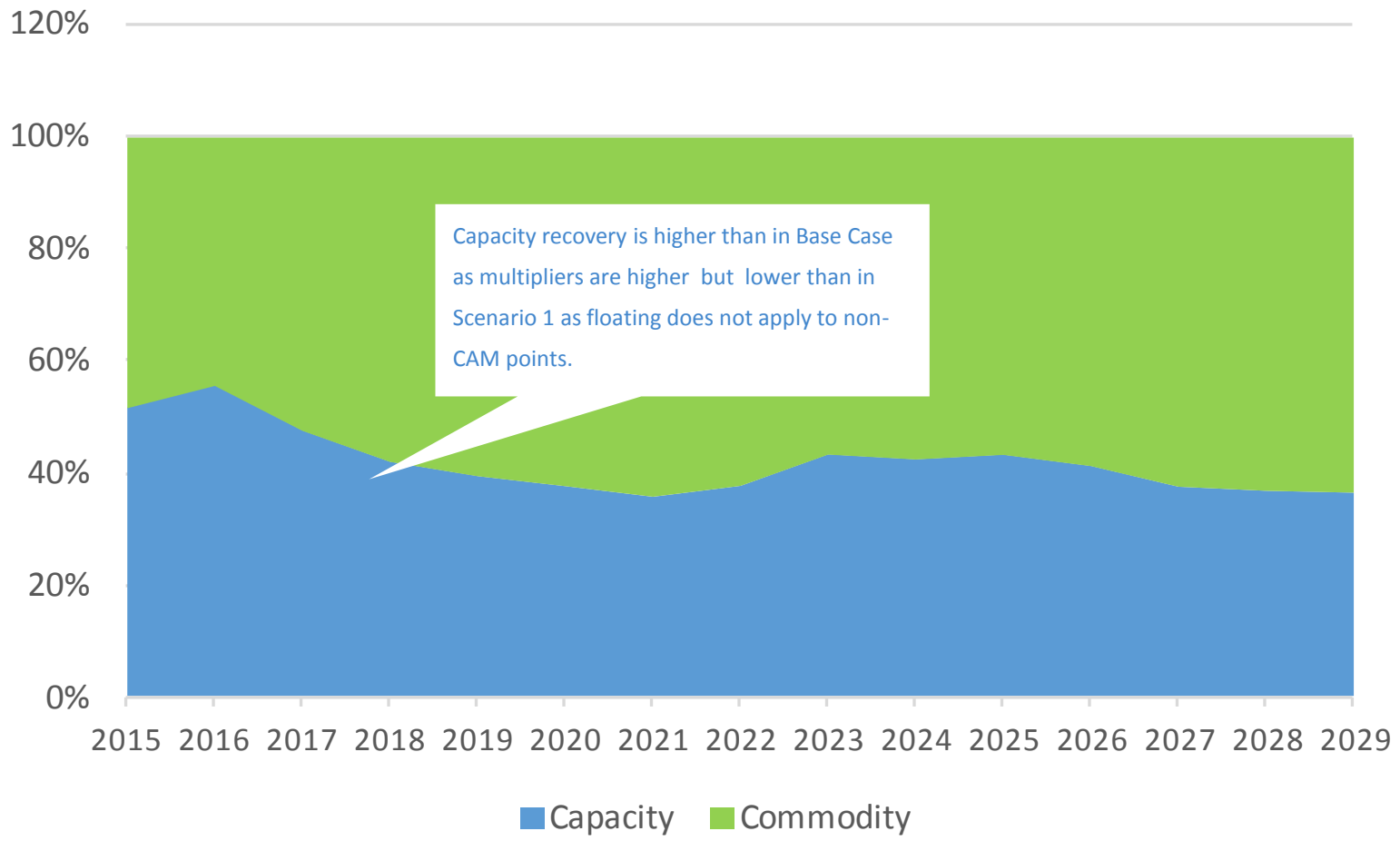
NTS Annual tariffs – subset of ASEPs



2c ILLUSTRATIVE SCENARIO 3 RESULTS

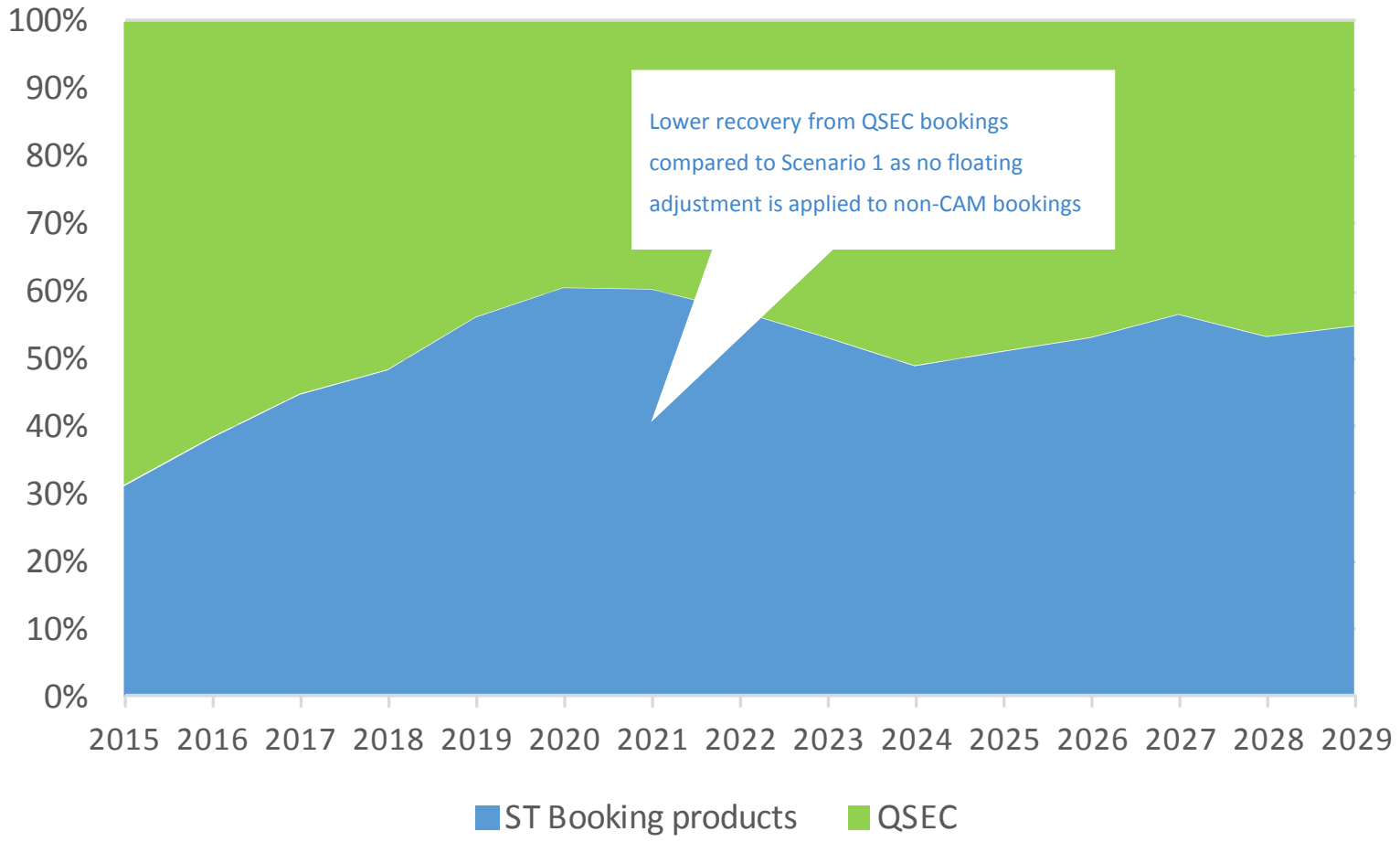
Scenario 3 results

Capacity – Commodity split



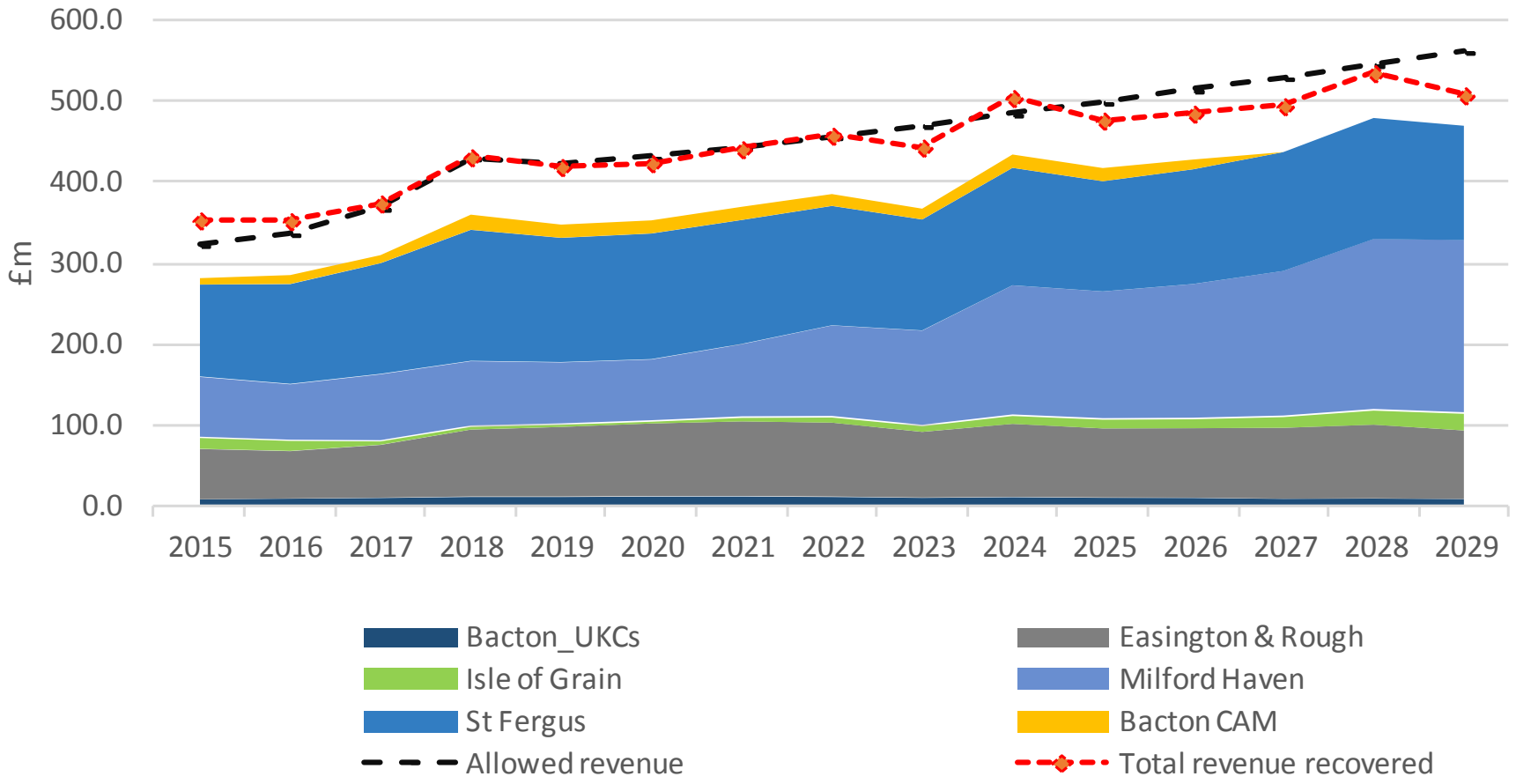
Scenario 3 results

Revenue recovery by product



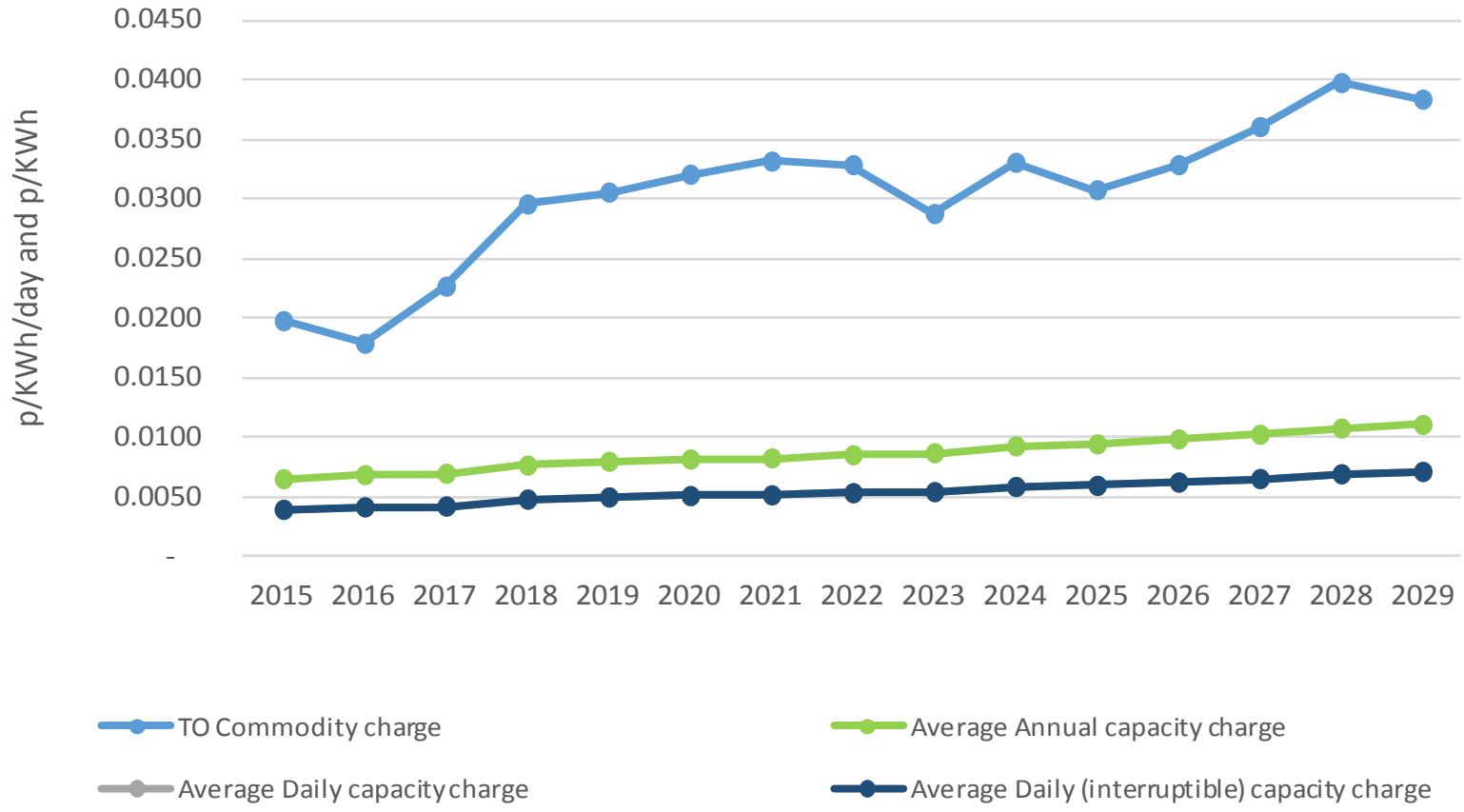
Scenario 3 results

Revenue recovery by ASEP



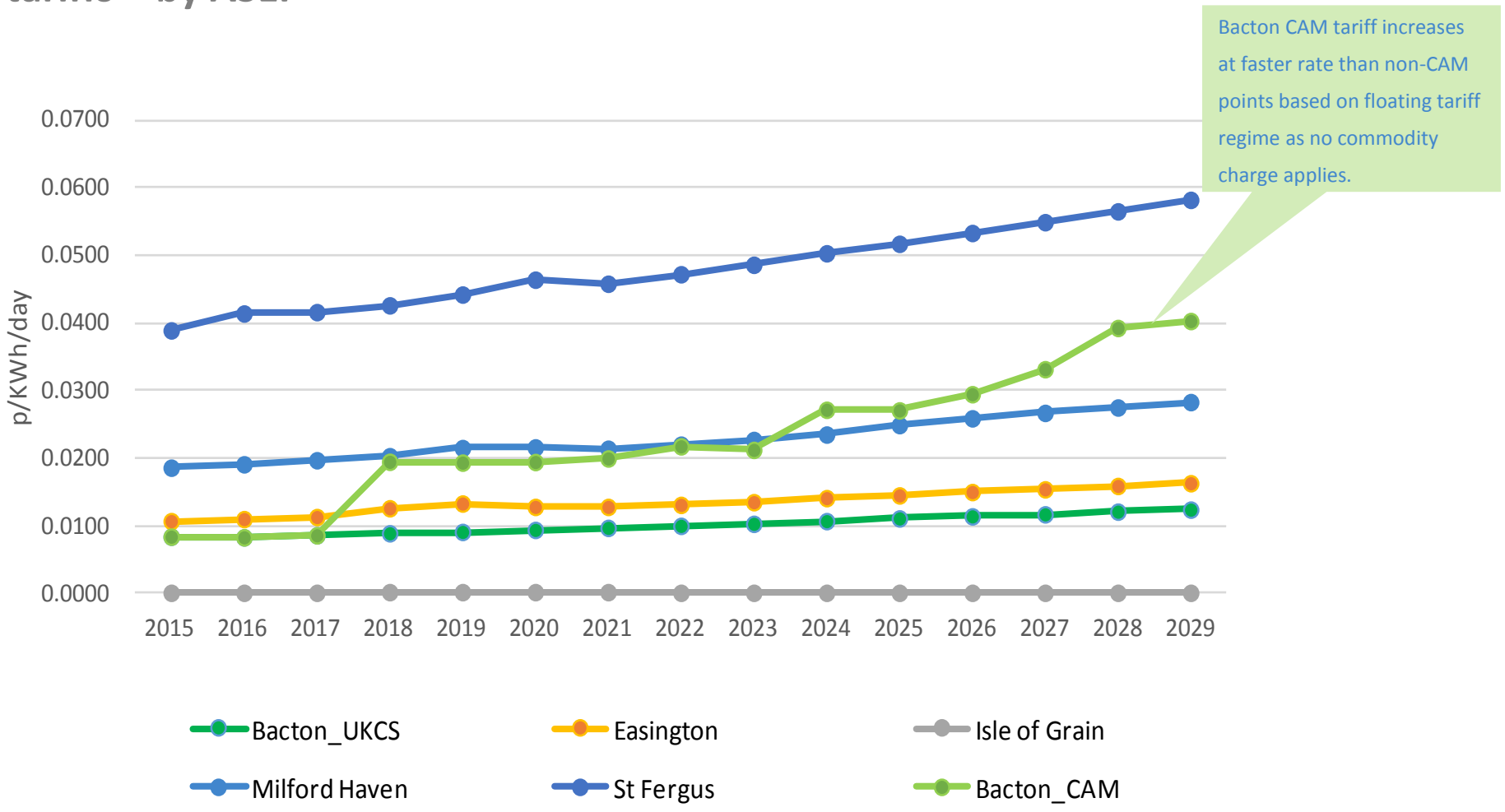
Scenario 3 results

NTS Annual tariffs - averages



Scenario 3 results

NTS tariffs – by ASEP



3 KEY ASSUMPTIONS

Key assumptions

Model results are sensitive to:

Network user price responsiveness, including:

1. **Approach to probability of constraint modelling**
2. **Applied model rules for booking QSEC**

Supporting slides to follow in next pack of material.

A ASSUMPTIONS

To follow in next pack of material ahead of meeting

Contact us

CAMBRIDGE ECONOMIC POLICY ASSOCIATES

Queens House, 55-56 Lincoln's Inn Fields
London WC2A 3LJ

Tel: 020 7269 0210
Fax: 020 7405 4699
info@cepa.co.uk
www.cepa.co.uk