

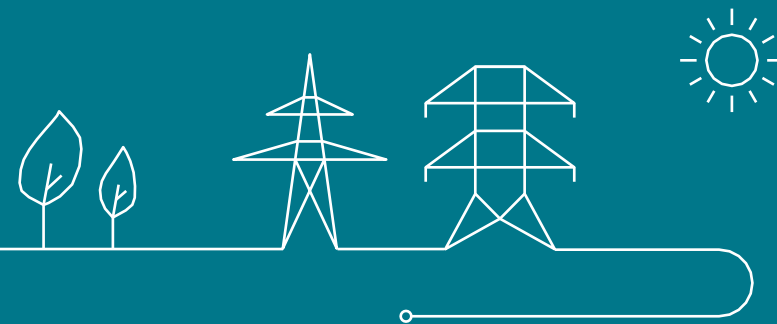
BSP Faster Settlement – TraXes training

18/09/2025

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2. TraXes
3. Practical Applications of TraXes APIs
4. How to use TraXes
5. Usecase explained
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7. Q&A

(Re)Introduction to Faster Settlement

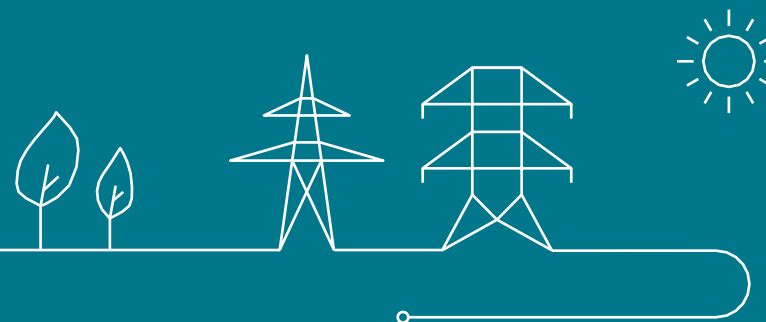


Introduction to faster Settlement for BSP

- **Faster processes for the Settlement for FCR, aFRR and mFRR:**
 - Remuneration of awarded capacity (November 2025)
 - Remuneration of activations (*not applicable for FCR*) (November 2025)
 - Penalties for availability/obligation control (mid 2026)
 - Penalties for activations control (mid 2026)
- **Proposed improvements:**
 - An accelerated calculation and provision of the settlement reportings to the BSP (at the latest for end of M+1)
 - The publication of the settlement reportings and invoices on a unique communication platform (= EPIC)
 - The switch from traditional billing process to a self-billing process (i.e., self-bills for remuneration and invoices for penalties)
 - The provision of settlement and metering data to BSPs via API's through the TraXes platform
- **Two training sessions planned:**
 - Practical training on using the API's available via the TraXes platform (18/09 → **This session**)
 - Comprehensive training covering the full process flow with EPIC (25/09 → **Next week's session**)



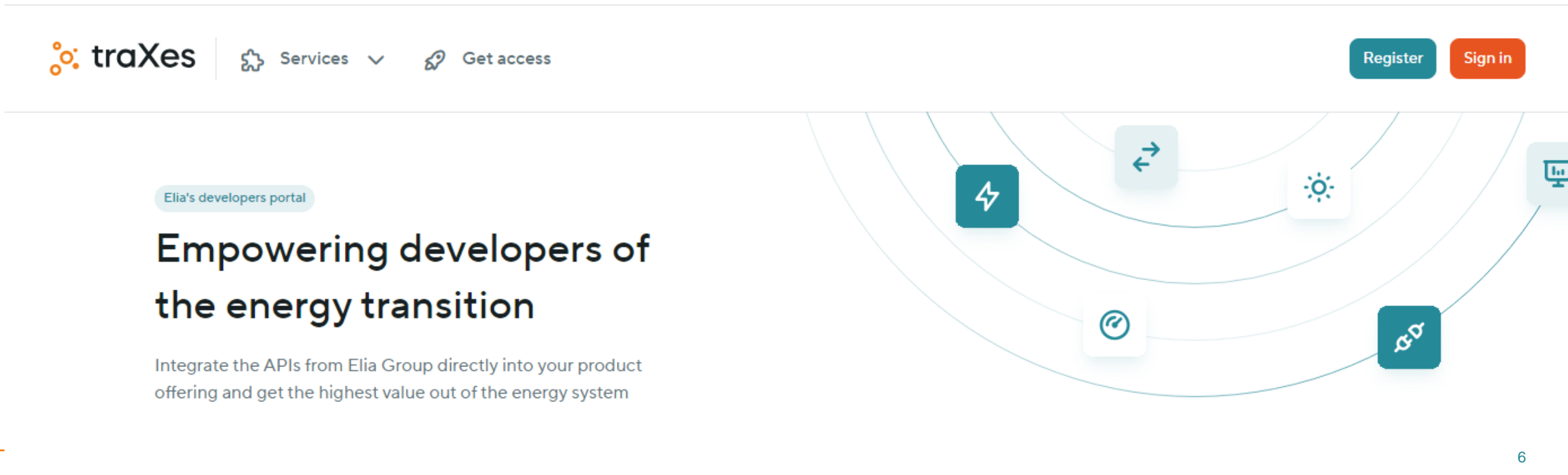
Introduction to TraXes



Introduction to TraXes

- TraXes is the Elia Group's developer **portal for digital data access**
- Forms the ultimate **hub** for energy stakeholders to **access essential components** from Elia Group via **APIs**
- Enables users to **develop** their **own services and solutions** using Elia's data
- Provides **third-party access** to settlement, metering and market-related data via secure APIs

<https://www.traxes.io/>



The screenshot shows the TraXes website interface. At the top, there is a navigation bar with the 'traXes' logo on the left, a 'Services' dropdown menu in the center, and 'Register' and 'Sign in' buttons on the right. Below the navigation bar, the main content area features a large heading 'Empowering developers of the energy transition' and a subheading 'Integrate the APIs from Elia Group directly into your product offering and get the highest value out of the energy system'. To the right of the text, there is a decorative graphic consisting of several concentric arcs with various icons (lightning bolt, double arrows, sun, gear, and bar chart) placed along them.

traXes

Services

Get access

Register

Sign in

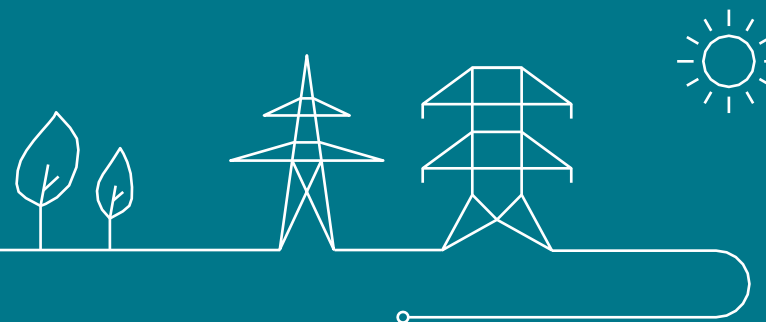
Elia's developers portal

Empowering developers of the energy transition

Integrate the APIs from Elia Group directly into your product offering and get the highest value out of the energy system

6

Practical uses of the traXes APIs

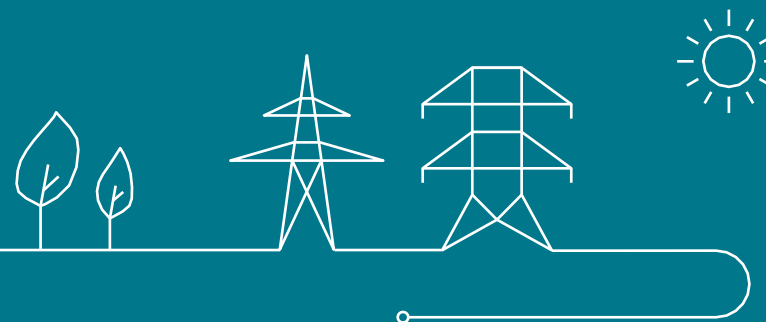


Practical applications of the API's

- Access all remuneration data, previously available through Settlement UI interface, via APIs
 - o All remuneration data will remain available through a web-based platform
- Approve bills and launch self-bills directly through API calls, streamlining the settlement and invoicing process
- Enable BSPs to develop custom tools and dashboards tailored to their operational needs
- Note that these API's are not yet published on TraXes but will be published together with the full EPIC self-billing release in November 2025

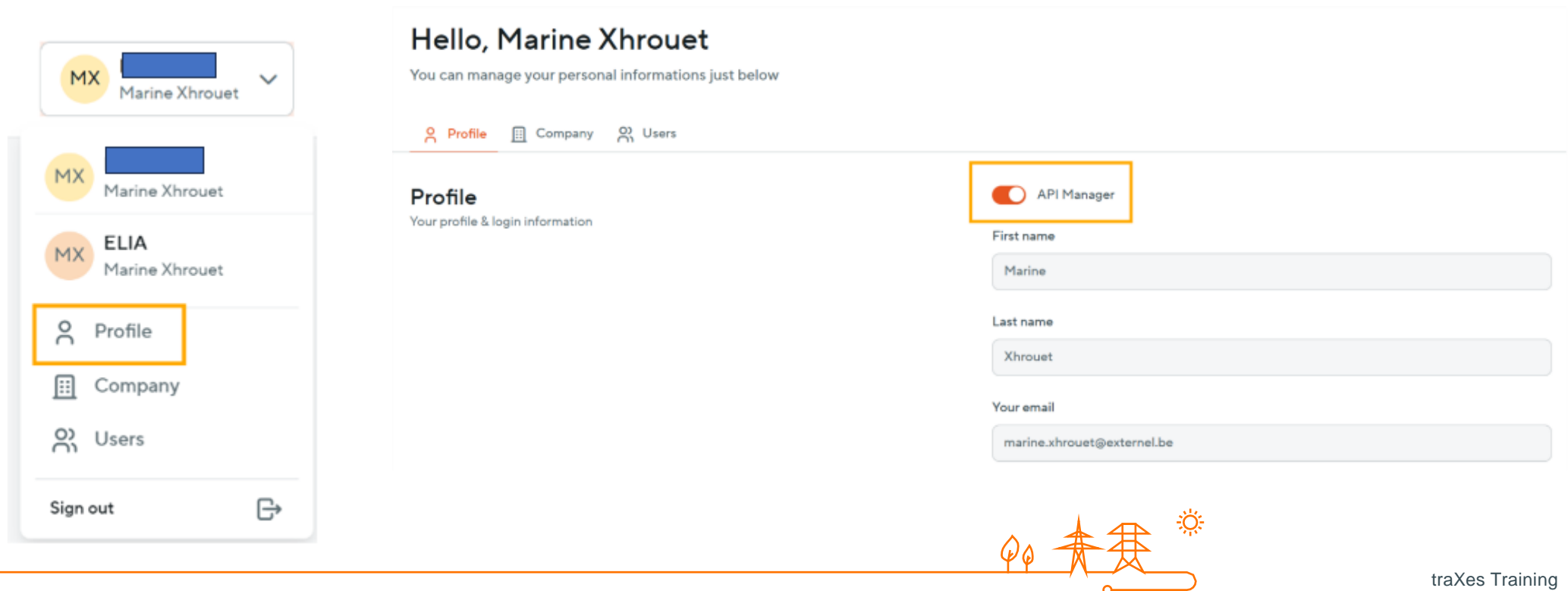


How to use TraXes



How to use TraXes & the APIs

- Log in to the TraXes production environment: <https://www.traxes.io/>
- If you do not have an account yet, ask your BSP admin to create one for you in EPIC
The role of BSP admin was given to one of your colleagues when the BSPs were onboarded onto TraXes & EPIC
- Make sure you have the “API manager” role enabled
This can be checked under your profile:



The screenshot displays the TraXes user interface. On the left is a sidebar menu with a user profile at the top (labeled 'MX' and 'Marine Xhrouet') and navigation options: 'Profile' (highlighted with an orange box), 'Company', 'Users', and 'Sign out'. The main content area is titled 'Hello, Marine Xhrouet' and includes a sub-header 'You can manage your personal informations just below'. Below this are tabs for 'Profile' (selected), 'Company', and 'Users'. The 'Profile' section is titled 'Profile' with the subtitle 'Your profile & login information'. It contains a toggle switch for 'API Manager' which is turned on (highlighted with an orange box). Below the toggle are input fields for 'First name' (Marine), 'Last name' (Xhrouet), and 'Your email' (marine.xhrouet@external.be). At the bottom right of the interface, there is a decorative orange line art illustration of a power line tower and a sun.

How to use TraXes & the API's

- Set up your application and your service:



- Use an existing application
- Select the “Settlement” service:



How to use TraXes & the API's

- Get the client ID/secret



TestSettlementTst

Get client ID/Secret

Collapse ^

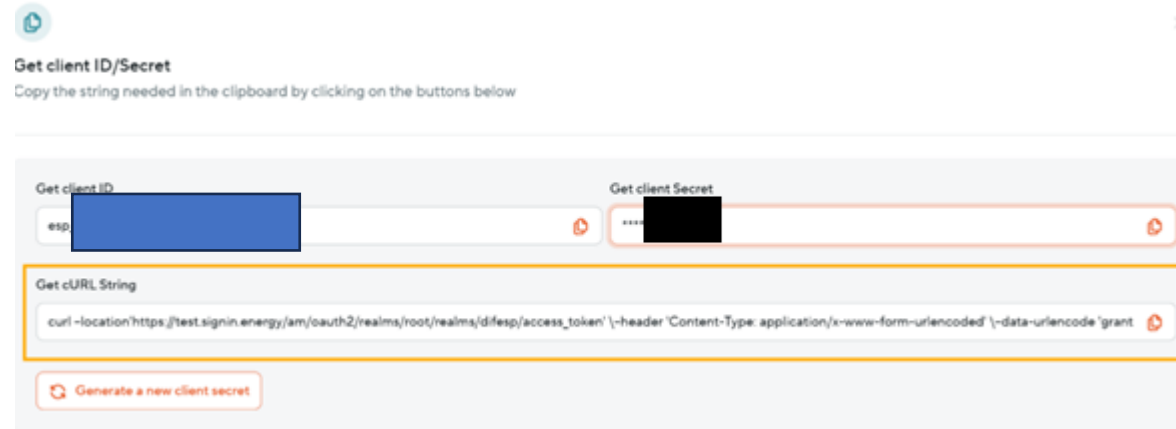
Services/APIs	Market	Access to production	ActivationDate
Data access for requester		<input type="checkbox"/>	
Imbalance price forecast		<input type="checkbox"/>	
Metering Data		<input type="checkbox"/>	
GreenGrid Compass		<input type="checkbox"/>	
Metering v2		<input type="checkbox"/>	
Toto		<input type="checkbox"/>	
Test new fields API Explore and DevPortalExplore		<input type="checkbox"/>	
Connect		<input type="checkbox"/>	
Settlement		<input checked="" type="checkbox"/>	Jun 25, 2025 13:38:41 GMT

Important: copy the client ID & secret and store it somewhere, they are only displayed **once**. If you don't save them you will have to regenerate the client ID / Secret

If you generate a new client ID / secret, the previous one will remain valid for 30 days



How to use TraXes & the API's



Get client ID/Secret

Copy the string needed in the clipboard by clicking on the buttons below

Get client ID: esp: [blue box]

Get client Secret: [black box]

Get cURL String

```
curl -location 'https://test.signin.energy/am/oauth2/realms/root/realms/difesp/access_token' \
  -header 'Content-Type: application/x-www-form-urlencoded' \
  -data-urlencode 'grant_type=client_credentials' \
  -data-urlencode 'client_id=TypeYourClientID' \
  -data-urlencode 'client_secret=TypeYourClientSecret' \
  -data-urlencode 'scope=esp'
```

Generate a new client secret

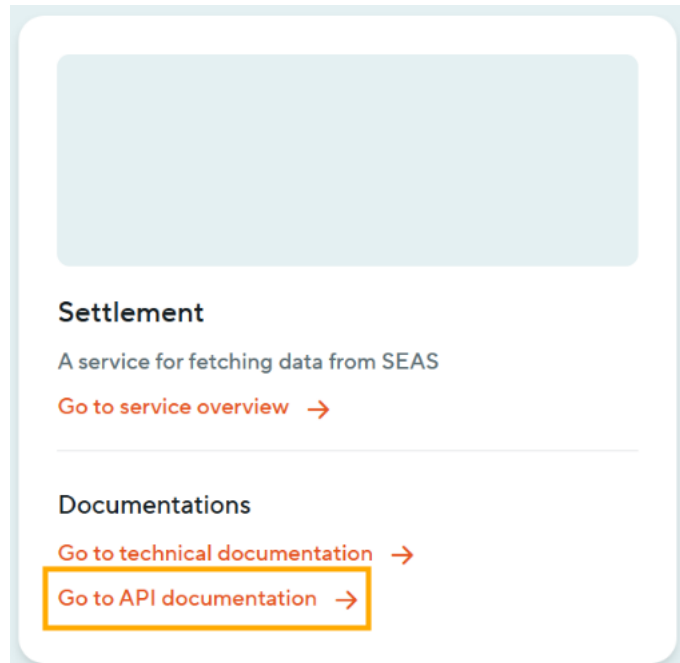
Now that you have your ClientID & Secret, you can generate your bearer token, for example with the following curl

```
curl --location 'https://test.signin.energy/am/oauth2/realms/root/realms/difesp/access_token' \
--header 'Content-Type: application/x-www-form-urlencoded' \
--data-urlencode 'grant_type=client_credentials' \
--data-urlencode 'client_id=TypeYourClientID' \
--data-urlencode 'client_secret=TypeYourClientSecret' \
--data-urlencode 'scope=esp'
```

Replace the **TypeYourClientID** & **TypeYourClientSecret** with the correct details

You will receive a token that is valid for **1 hour** that is used as authentication!

In TraXes you can find a list of technical documentation on every available API and how to use it, the documentation can be found here:



Documentation

An example of the documentation we will provide:

Authentication

Base URL

APIs

Contracts

FCR Capacity Remuneration

aFRR Capacity Remuneration

aFRR Activation Remuneration

mFRR Capacity Remuneration

mFRR Activation Remuneration

Feedback

APIs

Contracts

Search data availabilities

Endpoint

/v1/contract/searchdataavailabilities

Description

This API enables to get data availabilities depending on the contracts

Method

POST

Request body

The following parameters are mandatory in your request:

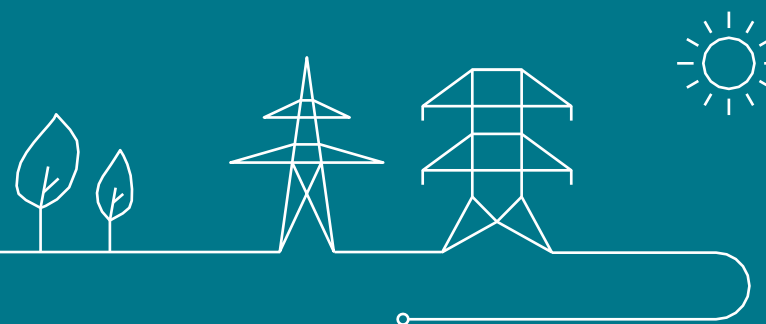
- **EAN:** Internal EAN code of your company
- **Product type:** Ancillary service
 - aFRR
 - mFRR
 - FCR
 - Redispatching
 - Voltage level
 - Black start
- **Module type:** Settlement type
 - Capacity availability
 - Capacity remuneration
 - Activation remuneration
 - Activation control
 - Consistency control
 - Return to schedule control
 - Automatic activation control
 - Manual activation control
 - Availability test control
 - Basic remuneration
 - Availability control
 - Availability test
 - Additional availability control
 - Compensator start up remuneration

Response parameters

The service will return the following parameters:



Use case explained
























A use case:

[Back](#) | FCR / Remuneration for FCR Awarded

Remuneration for FCR Awarded

FCR

04/2025

	<input type="checkbox"/>	Date/CCTU	Awarded Volume (MW)	Reservation Price (€/MW/h)	Remuneration (€)	Supplier Status	Supplier Comment	Elia Comment
+	<input type="checkbox"/>	01/04/2025			0,00	To be Validated		
-	<input type="checkbox"/>	02/04/2025			3.300,00	To be Validated		
	<input type="checkbox"/>	00-04	2,000	37,50	300,00	To be Validated		
	<input type="checkbox"/>	04-08	2,000	37,50	300,00	To be Validated		
	<input type="checkbox"/>	08-12	2,000	37,50	300,00	To be Validated		
	<input type="checkbox"/>	12-16	14,000	14,29	800,00	To be Validated		
	<input type="checkbox"/>	16-20	14,000	14,29	800,00	To be Validated		
	<input type="checkbox"/>	20-24	17,000	11,76	800,00	To be Validated		
+	<input type="checkbox"/>	03/04/2025			0,00	To be Validated		
+	<input type="checkbox"/>	04/04/2025			0,00	To be Validated		
+	<input type="checkbox"/>	05/04/2025			0,00	To be Validated		
+	<input type="checkbox"/>	06/04/2025			0,00	To be Validated		
+	<input type="checkbox"/>	07/04/2025			4.000,00	To be Validated		
+	<input type="checkbox"/>	08/04/2025			0,00	To be Validated		
+	<input type="checkbox"/>	09/04/2025			0,00	To be Validated		
+	<input type="checkbox"/>	10/04/2025			3.000,00	To be Validated		
+	<input type="checkbox"/>	11/04/2025			3.000,00	To be Validated		
+	<input type="checkbox"/>	12/04/2025			0,00	To be Validated		
+	<input type="checkbox"/>	13/04/2025			0,00	To be Validated		
+	<input type="checkbox"/>	14/04/2025			0,00	To be Validated		
+	<input type="checkbox"/>	15/04/2025			0,00	To be Validated		
+	<input type="checkbox"/>	16/04/2025			0,00	To be Validated		

The following is the API call used to (re)create FCR Renumeration awarded:

/settlement/interface/v1/FcrCapacityRemuneration/SearchCapacityRemunerations

Body:

```
{
  "contractReference": "FCR-[redacted]",
  "periodStart": "2024-04-01",
  "periodEnd": "2023-04-30"
}
```



A use case:

[Back](#) | FCR / Remuneration for FCR Awarded

Remuneration for FCR Awarded

FCR <input type="text" value=""/>					
04/2025 <input type="text" value=""/>					
	<input type="checkbox"/>	Date/CCTU	Awarded Volume (MW)	Reservation Price (€/MW/h)	Remuneration (€)
+	<input type="checkbox"/>	01/04/2025			0,00
-	<input type="checkbox"/>	02/04/2025			3.300,00
	<input type="checkbox"/>	00-04	2.000	37,50	300,00
	<input type="checkbox"/>	04-08	2.000	37,50	300,00
	<input type="checkbox"/>	08-12	2.000	37,50	300,00
	<input type="checkbox"/>	12-16	14.000	14,29	800,00
	<input type="checkbox"/>	16-20	14.000	14,29	800,00
	<input type="checkbox"/>	20-24	17.000	11,76	800,00
+	<input type="checkbox"/>	03/04/2025			0,00
+	<input type="checkbox"/>	04/04/2025			0,00
+	<input type="checkbox"/>	05/04/2025			0,00
+	<input type="checkbox"/>	06/04/2025			0,00
+	<input type="checkbox"/>	07/04/2025			4.000,00
+	<input type="checkbox"/>	08/04/2025			0,00
+	<input type="checkbox"/>	09/04/2025			0,00
+	<input type="checkbox"/>	10/04/2025			3.000,00
+	<input type="checkbox"/>	11/04/2025			3.000,00
+	<input type="checkbox"/>	12/04/2025			0,00
+	<input type="checkbox"/>	13/04/2025			0,00
+	<input type="checkbox"/>	14/04/2025			0,00
+	<input type="checkbox"/>	15/04/2025			0,00
+	<input type="checkbox"/>	16/04/2025			0,00

The following is the return body from the API call:

```
{
  "capacityRemunerations": [
    {
      "day": "2025-04-08",
      "contractReference": "..."
    },
    {
      "day": "2025-04-08",
      "contractReference": "..."
    },
    {
      "day": "2025-04-20",
      "contractReference": "..."
    },
    {
      "day": "2025-04-26",
      "contractReference": "..."
    },
    {
      "day": "2025-04-06",
      "contractReference": "..."
    },
    {
      "day": "2025-04-22",
      "contractReference": "..."
    },
    {
      "day": "2025-04-11",
      "contractReference": "..."
    },
    {
      "day": "2025-04-19",
      "contractReference": "..."
    },
    {
      "day": "2025-04-05",
      "contractReference": "..."
    },
    {
      "day": "2025-04-25",
      "contractReference": "..."
    },
    {
      "day": "2025-04-23",
      "contractReference": "..."
    },
    {
      "day": "2025-04-24",
      "contractReference": "..."
    },
    {
      "day": "2025-04-10",
      "contractReference": "..."
    },
    {
      "day": "2025-04-30",
      "contractReference": "..."
    },
    {
      "day": "2025-04-18",
      "contractReference": "..."
    },
    {
      "day": "2025-04-09",
      "contractReference": "..."
    },
    {
      "day": "2025-04-29",
      "contractReference": "..."
    },
    {
      "day": "2025-04-27",
      "contractReference": "..."
    },
    {
      "day": "2025-04-17",
      "contractReference": "..."
    },
    {
      "day": "2025-04-02",
      "contractReference": "..."
    },
    {
      "day": "2025-04-03",
      "contractReference": "..."
    },
    {
      "day": "2025-04-14",
      "contractReference": "..."
    },
    {
      "day": "2025-04-21",
      "contractReference": "..."
    },
    {
      "day": "2025-04-07",
      "contractReference": "..."
    },
    {
      "day": "2025-04-15",
      "contractReference": "..."
    },
    {
      "day": "2025-04-12",
      "contractReference": "..."
    },
    {
      "day": "2025-04-28",
      "contractReference": "..."
    },
    {
      "day": "2025-04-13",
      "contractReference": "..."
    },
    {
      "day": "2025-04-01",
      "contractReference": "..."
    },
    {
      "day": "2025-04-16",
      "contractReference": "..."
    },
    {
      "day": "2025-04-04",
      "contractReference": "..."
    }
  ],
  "companyPartyManagerId": "...",
  "contractReference": "...",
  "month": {
    "yearPart": 2025,
    "monthPart": 4
  },
  "overview": {
    "overviewStatus": 3,
    "remuneration": 13300
  }
}
```

A use case:

[Back](#) | FCR / Remuneration for FCR Awarded

Remuneration for FCR Awarded

FCR:

	<input type="checkbox"/>	Date/CCTU	Awarded Volume (MW)	Reservation Price (€/MW/h)	Remuneration (€)
+	<input type="checkbox"/>	01/04/2025			0,00
-	<input type="checkbox"/>	02/04/2025			3.300,00
	<input type="checkbox"/>	00-04	2.000	37,50	300,00
	<input type="checkbox"/>	04-08	2.000	37,50	300,00
	<input type="checkbox"/>	08-12	2.000	37,50	300,00
	<input type="checkbox"/>	12-16	14.000	14,29	800,00
	<input type="checkbox"/>	16-20	14.000	14,29	800,00
	<input type="checkbox"/>	20-24	17.000	11,76	800,00
+	<input type="checkbox"/>	03/04/2025			0,00
+	<input type="checkbox"/>	04/04/2025			0,00
+	<input type="checkbox"/>	05/04/2025			0,00
+	<input type="checkbox"/>	06/04/2025			0,00
+	<input type="checkbox"/>	07/04/2025			4.000,00
+	<input type="checkbox"/>	08/04/2025			0,00
+	<input type="checkbox"/>	09/04/2025			0,00
+	<input type="checkbox"/>	10/04/2025			3.000,00
+	<input type="checkbox"/>	11/04/2025			3.000,00
+	<input type="checkbox"/>	12/04/2025			0,00
+	<input type="checkbox"/>	13/04/2025			0,00
+	<input type="checkbox"/>	14/04/2025			0,00
+	<input type="checkbox"/>	15/04/2025			0,00
+	<input type="checkbox"/>	16/04/2025			0,00

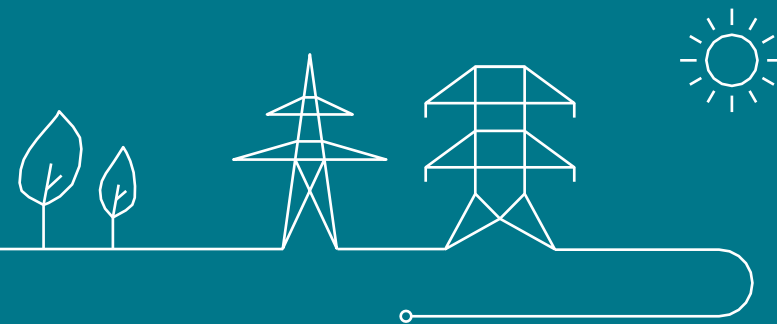
```

18: {day: "2025-04-02", contractReference: "..."}
  capacityRemunerationDetails: [{capacityRemunerationDetailId: "175448f4-2010-4e89-b9e6-18e933c77d04", ...}
    0: {capacityRemunerationDetailId: "175448f4-2010-4e89-b9e6-18e933c77d04", ...}
      awardedVolume: 2
      capacityRemunerationDetailId: "175448f4-2010-4e89-b9e6-18e933c77d04"
      cctuName: "08-12"
      isVirtual: false
      productType: 1
      remuneration: 300
      reservationPrice: 37.5
      startsOn: "2025-04-02T06:00:00Z"
      supplierComment: null
      supplierStatus: 0
      tsoComment: "d"
    1: {capacityRemunerationDetailId: "5cb1e534-ae21-4a0c-86f9-6e36098ef251", ...}
      awardedVolume: 14
      capacityRemunerationDetailId: "5cb1e534-ae21-4a0c-86f9-6e36098ef251"
      cctuName: "16-20"
      isVirtual: false
      productType: 1
      remuneration: 800
      reservationPrice: 14.285714
      startsOn: "2025-04-02T14:00:00Z"
      supplierComment: null
      supplierStatus: 0
      tsoComment: "d"
    2: {capacityRemunerationDetailId: "0b9d238b-e591-46cc-a4d1-b26df44fd88e", ...}
      awardedVolume: 2
      capacityRemunerationDetailId: "0b9d238b-e591-46cc-a4d1-b26df44fd88e"
      cctuName: "04-08"
      isVirtual: false
      productType: 1
      remuneration: 300
      reservationPrice: 37.5
      startsOn: "2025-04-02T02:00:00Z"
      supplierComment: null
      supplierStatus: 0
      tsoComment: "d"
    3: {capacityRemunerationDetailId: "51084343-6b72-4062-9b8e-bfd41f4342e9", ...}
    4: {capacityRemunerationDetailId: "14f49076-93e1-4df6-ad5d-d42df2cdef7c", ...}
    5: {capacityRemunerationDetailId: "e187e4f8-600b-4966-a1a3-dc6e603b5f9c", ...}
  contractReference:

```

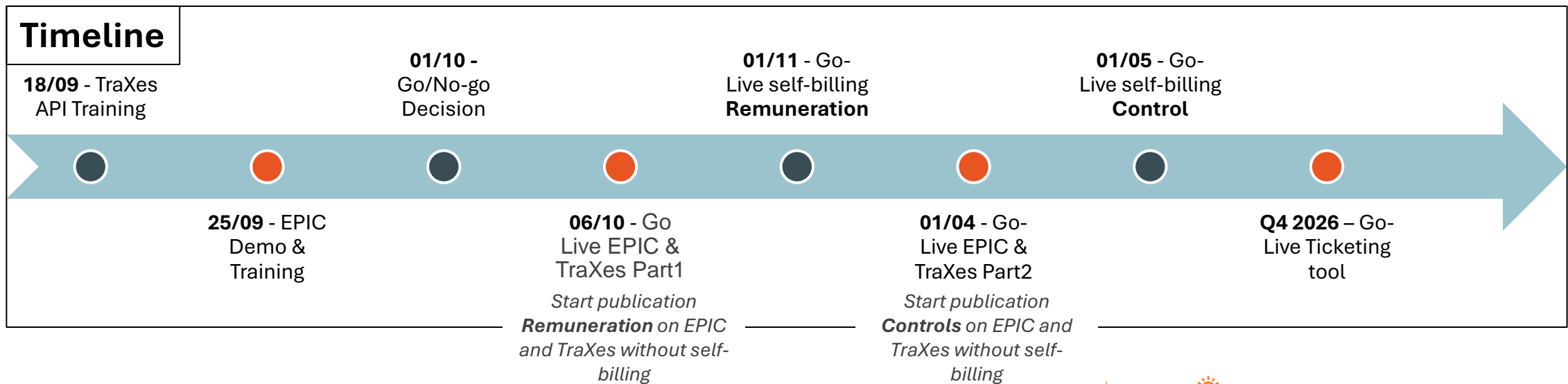


Final remarks



Practicalities

- APIs are completely optional: All functionalities are available via the web interface of EPIC
- If you have any feedback regarding the API's, EPIC, process flow, wordings,... feel free contact your KAM Energy
- Interested in building your own tooling? Let's see if we can set-up a connection together. Contact your KAM Energy!



This timeline is dependent on the approval of the T&Cs by the CREG





Q & A