

ABB MOTION SERVICES

# ABB Ability<sup>™</sup> Digital Powertrain condition monitoring for rotating equipment What's new? PI33

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## New features

#### New Energy Appraisal - Fleet overview report

The new "Energy Appraisal - Fleet overview report" provides energy efficiency insights by using the real-time data collected via the ABB Ability Digital Powertrain.

Note: This feature is only available for Organization Admin.

Portal:

1. In the Smart Sensor portal, go to Organization Management  $\rightarrow$  Reports  $\rightarrow$  Get your Energy Appraisal.

Asset groups	User groups	Users F	lant management	Settings	Trusted organization	Reports
Upload timestamp +	Report type	Reporting period	Unit type	Status	Comment	Actions
4/27/2022, 2:49:34 PM	Energy Appraisal - Energy Fleet Overview	3/28/2022 - 4/27/2022	Metric	Error	Insufficient eligible assets to generate the report	0
4/27/2022, 6:35:57 AM	Energy Appraisal - Energy Fleet Overview	3/28/2022 - 4/27/2022	Metric	Completed	Report was generated successfully	Ŷ
/20/2022, 3:53:00 PM	Energy Appraisal - Energy Fleet Overview	3/21/2022 - 4/20/2022	Metric	Completed	Report was generated successfully	Ŷ
4/19/2022, 2:15:31 PM	Energy Appraisal - Energy Fleet Overview	3/20/2022 - 4/19/2022	Metric	Completed	Report was generated successfully	\$
/19/2022, 11:00:25 AM	Energy Appraisal - Energy Fleet Overview	3/20/2022 - 4/19/2022	Metric	Completed	Report was generated successfully	Ŷ
/19/2022, 10:31:24 AM	Energy Appraisal - Energy Fleet Overview	3/20/2022 - 4/19/2022	Metric	Completed	Report was generated successfully	Ŷ
1/19/2022, 9:50:54 AM	Energy Appraisal - Energy Fleet Overview	3/20/2022 - 4/19/2022	Metric	Completed	Report was generated successfully	Ŷ
1/19/2022, 8:09:44 AM	Energy Appraisal - Energy Fleet Overview	3/20/2022 - 4/19/2022	Metric	Completed	Report was generated successfully	Ŷ
4/18/2022, 7:56:06 PM	Energy Appraisal - Energy Fleet Overview	3/19/2022 - 4/18/2022	Metric	Completed	Report was generated successfully	Ŷ
4/18/2022, 6:52:38 PM	Energy Appraisal - Energy Fleet Overview	3/19/2022 - 4/18/2022	Metric	Completed	Report was generated successfully	\$

2. In the Get your Energy Appraisal window, read the information on different ABB report types. Click Energy Fleet Overview, to generate the report. If you need a different type of report, click Get Advisory and contact ABB support for additonal information.

Get your Energy Appraisal
The Digital Powertrain Energy Appraisal is an expertise service that delivers energy efficiency insights by leveraging real data collected via ABB Ability™ Digital Powertrain. Three types of views are available:
<ul> <li>Energy Fleet Overview provides a high-level overview of your installed base fleet. It can be generated once per month. It aims to support you in answering the following question "Is there energy improvement potential in my fleet?"</li> </ul>
<ul> <li>Energy Assets Comparison: it is an ABB managed expert advisory report that provides multiple assets comparison identified among the installed base. It aims to answer the following question: "Which assets should I focus on?"</li> </ul>
<ul> <li>Energy Asset View provides a detailed view of a specific asset identified among the installed base. It aims to support you in answering the following question "Why is a specific asset not efficient and what can I do to become more efficient?"</li> </ul>
Energy Fleet Overview Get Advisory
Energy savings and efficiency are derived combining measurements and efficiency models in an indirect way. Measurement's accuracy might vary due to hardware constraints, sensor's position, type of motor and other variables. Efficiency models heavily rely on correctness of nameplate information inserted by the customer during installation. Please verify such data before requesting the Energy Appraisal.
Close

Note:

• You can generate the report only once a month, if the report was already generated in the previous 30 days, you must wait until the time elapses or contact ABB support for a different type of report.

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- Make sure that the organization contains at least two eligible assets and fulfills the following conditions:
  - o Subscription: Active
  - o Asset type: DOL motor asset type (VFD motors are excluded)
  - o Rated slip value: > 15 rpm
  - o Motor type: Low voltage motor (lower than 1000 V)
  - o Monitored by: Smart Sensor Generation 2 only.
- 3. The request processed message appears if the above conditions are fulfilled. Read the information and click Close.

Digital Powertrain Energy Appraisal - Fleet Overview requested	×
The request has been processed, and the report should be available	in
the next minutes. Please wait a few minutes and refresh the page to	have
the report added to the list.	Close

- If the report is not generated, you are prompted to request for more information from ABB support.
- If you requested a fleet overview report that is already generated, you are prompted to contact ABB support. In the Contact Customer Support window, select the country you are based or the country for which you require support and click Request Support.

ontact Customer Supp	ort		
Please select country	where you are based	or for which vo	u require
support:	ancie you ale based	or for which yo	arequie
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Antarctica	~		

The Advisory requested confirmation message appears. Click Close.



• If you clicked Get Advisory (see step 2), the following message windows appear. Read the information and perform the appropriate action.

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Get your Energy Appraisal
Dear customer,
The Digital Powertrain Energy Appraisal is derived combining measurements and efficiency models coming from our ABB Ability <sup>TM</sup> Smart Sensor Gen.2. One or more than one needed parameter to generate the Energy Appraisal is missing. Please get in contact with us to get more insights to improve your energy efficiency.
Kind regards, ABB Ability™ Digital Powertrain Team
Close Contact Ab Sale
Please select country where you are based or for which you require support:
Please select country where you are based or for which you require support: Antarctica
Please select country where you are based or for which you require support: Antarctica Close RequestsSupport
Please select country where you are based or for which you require support: Antarctica Close Request Support udvisory Requested Dear customer,
Please select country where you are based or for which you require support: Antarctica Close Request Support Advisory Requested Dear customer, Thank you for submitting your request to obtain a Digital Powertrain Energy Appraisal, our support team will analyze your request and will get back to you.
Please select country where you are based or for which you require support: Antarctica Close Request Support Advisory Requested Dear customer, Thank you for submitting your request to obtain a Digital Powertrain Energy Appraisal, our support team will analyze your request and will get back to you. Kind regards, ABB Ability <sup>M</sup> Digital Powertrain Team

4. In the reports list, download and inspect the generated report.

_ A	Smart Sensor	Condition Monitoring	Symptom Monitoring	Asset Details	Organization Managemen	it			沿 [Test_SmartSensor]	<u> </u>	=
	Asset groups	Use	er groups	User	s P	lant management		Settings	Reports	1	
	Upload timestamp +	Rep	ort type	Re	porting period	Unit type	Status	Comment		Actions	
	4/20/2022, 6:38:30 PM	Energy Appraisal -	Energy Fleet Overview	3/21/	2502/05/4 - 5505/	Metric	Completed	Report was gene	rated successfully	Ŷ	
	4/14/2022, 10:30:11 PM	Energy Appraisal	Energy Fleet Overview	3/15/	2022-4/14/2022	Metric	Completed	Report was gene	rated successfully	\$	

The downloaded report appears in a MS word file. The below screen is only a sample cover page of the report.



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#### Decommissioning an asset

The wording "Decommission asset" replaces "Delete asset" for better clarity of the decommissioning operation.

- 1. In the Smart Sensor mobile app, go to Asset Management  $\rightarrow$  Decommission asset.
- 2. In the Decommission asset screen, select an appropriate reason for decommissioning and explain the reason if needed.
- 3. Select the required option, either Reset Sensor or Delete asset. Tap OK. The *Decommission asset success*, message appears.
  - Select Reset Sensor option to remove the link between the sensor and asset i.e., to keep the asset as un-monitored without losing the measurement and event history and make the sensor available for the next commissioning.
  - Select Delete asset option to decommission the asset permanently.

(1)		(2)		_ (2)		
€ Da	Smart Sensor	×	/ Decommission asset		Decommission asset	_
	(1) Load measurement	_ 1	Why are you decommissioning g1?	V	Why are you decommissior	ning g1?
	Asset Information	~	Select a reason			
-	Sensor Management	~			Defect of the GenericM	
	Asset Management	^	Please explain further		Defect of the sensor	
c	Add to favorites				GenericMachine upgrade	
Sł	∠ Transfer asset		Depart Sensor		Maintenance replacem	
	Decommission asset		Reset functionality is only available		Other reason	wailable
			when in range. Enable Bluetooth and location.	v e	when in range. Enable Blue and location.	tooth
			Delete asset	C	Delete asset	
			By selecting this option the asset will be permanently deleted and access to previously collected measurements and events for	E v a r	By selecting this option the vill be permanently deleted access to previously collect neasurements and events	asset and ted for
			CANCEL OK		CANCEL	ок
3 Decc Why Main Test Rese when and b By se will b accer meas	ommission asset are you decommissioning g tenance replacement ting Reset Sensor t functionality is only available in range. Enable Bluetooth ocation. Delete asset electing this option the asset be permanently deleted and ss to previously collected surements and events for CANCEL		Dashboard			

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#### Load measurement indicator

After loading measurement data with the mobile device, loaded measurements from the sensor appear in the Health and Operational Parameters list. A loading indicator with the message "Waiting for cloud data" appears at the bottom of the Health and Operational Parameters screen. Some parameters that are to be calculated at the backend are greyed out until the data is uploaded to the cloud.

< Dashboard	$\odot \equiv$						
E7D3 ABB_India_Testing 優小の (こ m) Measurement data <1 min old							
Operational Parameters							
Vibration (radial)	0.063 mm/s RMS						
Vibration (tangential)	0.059 mm/s RMS						
Vibration (axial)	0.051 mm/s RMS						
Speed	0 rpm						
Nr. of starts between measurements	1						
Motor supply frequency	0 Hz						
Output power	0.02 kW						
🔅 Waiting for cloud data							
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Note: Data synchronization takes at least three minutes to view the latest data.

Note: The user can manually synchronize the data by swapping down the asset list in the main menu of the mobile app.

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