

**Changes to Argus Hydrogen and Future Fuels effective 27 September 2022**

Argus is adding the following assessments to Argus Hydrogen and Future Fuels effective 27 September 2022. These changes apply to the dhydrogen.csv file in the Dhydrogen folder of ftp.argusmedia.com

PA-Code	Time stamp	Price type	Continuous forward	Description	Differential basis	Start date	End date	Unit	Category	Frequency
PA0036190	0	8	0	Hydrogen BAT+ coal gasification Australia 5500 NAR USD/kg	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->Australia->Incl capex	Weekly
PA0036191	0	8	0	Hydrogen BAT+ coal gasification Australia 6000 NAR USD/kg	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->Australia->Incl capex	Weekly
PA0036192	0	8	0	Hydrogen BAT+ coal gasification China 3800 NAR USD/kg	-	07-Dec-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->China->Incl capex	Weekly
PA0036193	0	8	0	Hydrogen BAT+ coal gasification China 5500 NAR USD/kg	-	07-Dec-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->China->Incl capex	Weekly
PA0036194	0	8	0	Hydrogen BAT+ coal gasification South Africa 4800 NAR	-	06-Apr-2021		USD/kg	->Hydrogen->Calculated costs->Africa->South Africa->Incl capex	Weekly
PA0036195	0	8	0	Hydrogen BAT+ coal gasification South Africa 6000 NAR	-	06-Apr-2021		USD/kg	->Hydrogen->Calculated costs->Africa->South Africa->Incl capex	Weekly
PA0036198	0	8	0	Hydrogen BAT+ coal gasification Indonesia 5500 NAR	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->Indonesia->Incl capex	Weekly
PA0036199	0	8	0	Hydrogen BAT+ coal gasification Indonesia 3800 NAR	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->Indonesia->Incl capex	Weekly
PA0036200	0	8	0	Hydrogen BAT+ coal gasification Russia 6000 NAR	-	05-Oct-2021		USD/kg	->Hydrogen->Calculated costs->Russia->Incl capex	Weekly
PA0036201	0	8	0	Hydrogen BAT+ coal gasification US east coast	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Americas->US->Incl capex	Weekly
PA0036338	0	8	0	Hydrogen BAT+ coal gasification Australia 5500 NAR excl capex USD/kg	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->Australia->Excl capex	Weekly
PA0036339	0	8	0	Hydrogen BAT+ coal gasification Australia 6000 NAR excl capex USD/kg	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->Australia->Excl capex	Weekly
PA0036340	0	8	0	Hydrogen BAT+ coal gasification China 3800 NAR excl capex USD/kg	-	07-Dec-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->China->Excl capex	Weekly
PA0036341	0	8	0	Hydrogen BAT+ coal gasification China 5500 NAR excl capex USD/kg	-	07-Dec-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->China->Excl capex	Weekly
PA0036342	0	8	0	Hydrogen BAT+ coal gasification South Africa 4800 NAR excl capex	-	06-Apr-2021		USD/kg	->Hydrogen->Calculated costs->Africa->South Africa->Excl capex	Weekly
PA0036343	0	8	0	Hydrogen BAT+ coal gasification South Africa 6000 NAR excl capex	-	06-Apr-2021		USD/kg	->Hydrogen->Calculated costs->Africa->South Africa->Excl capex	Weekly
PA0036346	0	8	0	Hydrogen BAT+ coal gasification Indonesia 5500 NAR excl capex	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->Indonesia->Excl capex	Weekly
PA0036347	0	8	0	Hydrogen BAT+ coal gasification Indonesia 3800 NAR excl capex	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->Indonesia->Excl capex	Weekly
PA0036348	0	8	0	Hydrogen BAT+ coal gasification Russia 6000 NAR excl capex	-	05-Oct-2021		USD/kg	->Hydrogen->Calculated costs->Russia->Excl capex	Weekly
PA0036349	0	8	0	Hydrogen BAT+ coal gasification US east coast excl capex	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Americas->US->Excl capex	Weekly
PA0036401	0	8	0	Hydrogen BAT+ coal gasification Australia 5500 NAR AUD/kg	-	05-Jan-2021		AUD/kg	->Hydrogen->Calculated costs->Asia-Pacific->Australia->Incl capex	Weekly
PA0036402	0	8	0	Hydrogen BAT+ coal gasification Australia 6000 NAR AUD/kg	-	05-Jan-2021		AUD/kg	->Hydrogen->Calculated costs->Asia-Pacific->Australia->Incl capex	Weekly
PA0036403	0	8	0	Hydrogen BAT+ coal gasification China 3800 NAR CNY/kg	-	07-Dec-2021		CNY/kg	->Hydrogen->Calculated costs->Asia-Pacific->China->Incl capex	Weekly
PA0036404	0	8	0	Hydrogen BAT+ coal gasification China 5500 NAR CNY/kg	-	07-Dec-2021		CNY/kg	->Hydrogen->Calculated costs->Asia-Pacific->China->Incl capex	Weekly
PA0036405	0	8	0	Hydrogen BAT+ coal gasification Australia 5500 NAR excl capex AUD/kg	-	05-Jan-2021		AUD/kg	->Hydrogen->Calculated costs->Asia-Pacific->Australia->Excl capex	Weekly
PA0036406	0	8	0	Hydrogen BAT+ coal gasification Australia 6000 NAR excl capex AUD/kg	-	05-Jan-2021		AUD/kg	->Hydrogen->Calculated costs->Asia-Pacific->Australia->Excl capex	Weekly
PA0036407	0	8	0	Hydrogen BAT+ coal gasification China 3800 NAR excl capex CNY/kg	-	07-Dec-2021		CNY/kg	->Hydrogen->Calculated costs->Asia-Pacific->China->Excl capex	Weekly
PA0036408	0	8	0	Hydrogen BAT+ coal gasification China 5500 NAR excl capex CNY/kg	-	07-Dec-2021		CNY/kg	->Hydrogen->Calculated costs->Asia-Pacific->China->Excl capex	Weekly
PA0037178	0	8	0	Hydrogen BAT+ SMR+CCS Netherlands excl capex retrofit EUR/kg	-	05-Jan-2021		Euro/kg	->Hydrogen->Calculated costs->Europe->Netherlands->Excl capex	Weekly
PA0037179	0	8	0	Hydrogen BAT+ SMR+CCS UK excl capex retrofit GBP/kg	-	05-Jan-2021		GBP/kg	->Hydrogen->Calculated costs->Europe->UK->Excl capex	Weekly
PA0037180	0	8	0	Hydrogen BAT+ SMR+CCS Germany excl capex retrofit EUR/kg	-	05-Jan-2021		Euro/kg	->Hydrogen->Calculated costs->Europe->Germany->Excl capex	Weekly
PA0037181	0	8	0	Hydrogen BAT+ SMR+CCS France excl capex retrofit EUR/kg	-	05-Jan-2021		Euro/kg	->Hydrogen->Calculated costs->Europe->France->Excl capex	Weekly
PA0037182	0	8	0	Hydrogen BAT+ SMR+CCS Spain excl capex retrofit EUR/kg	-	05-Jan-2021		Euro/kg	->Hydrogen->Calculated costs->Europe->Spain->Excl capex	Weekly
PA0037183	0	8	0	Hydrogen BAT+ SMR+CCS US Gulf coast excl capex retrofit	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Americas->US->Excl capex	Weekly
PA0037184	0	8	0	Hydrogen BAT+ SMR+CCS Canada excl capex retrofit CAD/kg	-	05-Jan-2021		CAD/kg	->Hydrogen->Calculated costs->Americas->Canada->Excl capex	Weekly
PA0037185	0	8	0	Hydrogen BAT+ SMR+CCS Australia excl capex retrofit AUD/kg	-	05-Jan-2021		AUD/kg	->Hydrogen->Calculated costs->Asia-Pacific->Australia->Excl capex	Weekly
PA0037186	0	8	0	Hydrogen BAT+ SMR+CCS Trinidad excl capex retrofit	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Americas->Trinidad->Excl capex	Weekly
PA0037187	0	8	0	Hydrogen BAT+ SMR+CCS Qatar excl capex retrofit	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Mideast Gulf->Qatar->Excl capex	Weekly
PA0037188	0	8	0	Hydrogen BAT+ SMR+CCS Russia East excl capex retrofit	-	05-Oct-2021		USD/kg	->Hydrogen->Calculated costs->Russia->Excl capex	Weekly
PA0037189	0	8	0	Hydrogen BAT+ SMR+CCS UAE excl capex retrofit	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Mideast Gulf->UAE->Excl capex	Weekly
PA0037190	0	8	0	Hydrogen BAT+ SMR+CCS Japan excl capex retrofit JPY/kg	-	25-May-2021		JPY/kg	->Hydrogen->Calculated costs->Asia-Pacific->Japan->Excl capex	Weekly
PA0037191	0	8	0	Hydrogen BAT+ SMR+CCS South Korea excl capex retrofit KRW/kg	-	05-Jan-2021		KRW/kg	->Hydrogen->Calculated costs->Asia-Pacific->South Korea->Excl capex	Weekly
PA0037192	0	8	0	Hydrogen BAT+ SMR+CCS Netherlands excl capex retrofit USD/kg	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Europe->Netherlands->Excl capex	Weekly
PA0037193	0	8	0	Hydrogen BAT+ SMR+CCS UK excl capex retrofit USD/kg	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Europe->UK->Excl capex	Weekly
PA0037194	0	8	0	Hydrogen BAT+ SMR+CCS Germany excl capex retrofit USD/kg	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Europe->Germany->Excl capex	Weekly
PA0037195	0	8	0	Hydrogen BAT+ SMR+CCS France excl capex retrofit USD/kg	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Europe->France->Excl capex	Weekly
PA0037196	0	8	0	Hydrogen BAT+ SMR+CCS Spain excl capex retrofit USD/kg	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Europe->Spain->Excl capex	Weekly
PA0037197	0	8	0	Hydrogen BAT+ SMR+CCS Canada excl capex retrofit USD/kg	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Americas->Canada->Excl capex	Weekly
PA0037198	0	8	0	Hydrogen BAT+ SMR+CCS Australia excl capex retrofit USD/kg	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->Australia->Excl capex	Weekly
PA0037199	0	8	0	Hydrogen BAT+ SMR+CCS Japan excl capex retrofit USD/kg	-	25-May-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->Japan->Excl capex	Weekly
PA0037200	0	8	0	Hydrogen BAT+ SMR+CCS South Korea excl capex retrofit USD/kg	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->South Korea->Excl capex	Weekly
PA0037201	0	8	0	Hydrogen BAT+ SMR+CCS Russia West excl capex retrofit	-	05-Oct-2021		USD/kg	->Hydrogen->Calculated costs->Russia->Excl capex	Weekly
PA0037608	0	8	0	Hydrogen no-C diurnal+PEM China CNY/kg	-	05-Jan-2021		CNY/kg	->Hydrogen->Calculated costs->Asia-Pacific->China->Incl capex	Weekly
PA0037609	0	8	0	Hydrogen no-C diurnal+PEM China USD/kg	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->China->Incl capex	Weekly
PA0037610	0	8	0	Hydrogen no-C diurnal+PEM China excl capex CNY/kg	-	05-Jan-2021		CNY/kg	->Hydrogen->Calculated costs->Asia-Pacific->China->Excl capex	Weekly
PA0037611	0	8	0	Hydrogen no-C diurnal+PEM China excl capex USD/kg	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->China->Excl capex	Weekly
PA0037612	0	8	0	Hydrogen no-C diurnal+PEM India INR/kg	-	05-Jan-2021		INR/kg	->Hydrogen->Calculated costs->Asia-Pacific->India->Incl capex	Weekly
PA0037613	0	8	0	Hydrogen no-C diurnal+PEM India USD/kg	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->India->Incl capex	Weekly

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PA0037614	0	8	0	Hydrogen no-C diurnal+PEM India excl capex INR/kg	-	05-Jan-2021		INR/kg	->Hydrogen->Calculated costs->Asia-Pacific->India->Excl capex	Weekly
PA0037615	0	8	0	Hydrogen no-C diurnal+PEM India excl capex USD/kg	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->India->Excl capex	Weekly
PA0037616	0	8	0	Hydrogen no-C diurnal+PEM South Africa	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Africa->South Africa->Incl capex	Weekly
PA0037617	0	8	0	Hydrogen no-C diurnal+PEM South Africa excl capex	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Africa->South Africa->Excl capex	Weekly
PA0037618	0	8	0	Hydrogen no-C diurnal+PEM Saudi Arabia	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Mideast Gulf->Saudi Arabia->Incl capex	Weekly
PA0037619	0	8	0	Hydrogen no-C diurnal+PEM Saudi Arabia excl capex	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Mideast Gulf->Saudi Arabia->Excl capex	Weekly
PA0037620	0	8	0	Hydrogen no-C diurnal+PEM Qatar	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Mideast Gulf->Qatar->Incl capex	Weekly
PA0037621	0	8	0	Hydrogen no-C diurnal+PEM Qatar excl capex	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Mideast Gulf->Qatar->Excl capex	Weekly
PA0037622	0	8	0	Hydrogen no-C diurnal+PEM UAE	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Mideast Gulf->UAE->Incl capex	Weekly
PA0037623	0	8	0	Hydrogen no-C diurnal+PEM UAE excl capex	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Mideast Gulf->UAE->Excl capex	Weekly
PA0037643	0	8	0	Hydrogen no-C diurnal+PEM Brazil	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Americas->Brazil->Incl capex	Weekly
PA0037644	0	8	0	Hydrogen no-C diurnal+PEM Brazil excl capex	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Americas->Brazil->Excl capex	Weekly
PA0037645	0	8	0	Hydrogen decarbonisation spread no-C to BAT+ northwest Europe	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Europe->Regional averages->Incl capex	Weekly
PA0037646	0	8	0	Hydrogen decarbonisation spread no-C to BAT+ North America	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Americas->Regional averages->Incl capex	Weekly
PA0037647	0	8	0	Hydrogen decarbonisation spread no-C to BAT+ northeast Asia	-	25-May-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->Regional averages->Incl capex	Weekly
PA0037648	0	8	0	Hydrogen decarbonisation spread no-C to BAT+ net exporter	-	05-Oct-2021		USD/kg	->Hydrogen->Calculated costs->Net exporter->Incl capex	Weekly
PA0037649	0	8	0	Hydrogen decarbonisation spread no-C to BAT+ northwest Europe excl capex	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Europe->Regional averages->Excl capex	Weekly
PA0037650	0	8	0	Hydrogen decarbonisation spread no-C to BAT+ North America excl capex	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Americas->Regional averages->Excl capex	Weekly
PA0037651	0	8	0	Hydrogen decarbonisation spread no-C to BAT+ northeast Asia excl capex	-	25-May-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->Regional averages->Excl capex	Weekly
PA0037652	0	8	0	Hydrogen decarbonisation spread no-C to BAT+ net exporter excl capex	-	05-Oct-2021		USD/kg	->Hydrogen->Calculated costs->Net exporter->Excl capex	Weekly
PA0037653	0	8	0	Hydrogen decarbonisation spread BAT+ to baseline northwest Europe	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Europe->Regional averages->Incl capex	Weekly
PA0037654	0	8	0	Hydrogen decarbonisation spread BAT+ to baseline North America	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Americas->Regional averages->Incl capex	Weekly
PA0037655	0	8	0	Hydrogen decarbonisation spread BAT+ to baseline northeast Asia	-	25-May-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->Regional averages->Incl capex	Weekly
PA0037656	0	8	0	Hydrogen decarbonisation spread BAT+ to baseline net exporter	-	05-Oct-2021		USD/kg	->Hydrogen->Calculated costs->Net exporter->Incl capex	Weekly
PA0037657	0	8	0	Hydrogen decarbonisation spread BAT+ to baseline northwest Europe excl capex	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Europe->Regional averages->Excl capex	Weekly
PA0037658	0	8	0	Hydrogen decarbonisation spread BAT+ to baseline North America excl capex	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Americas->Regional averages->Excl capex	Weekly
PA0037659	0	8	0	Hydrogen decarbonisation spread BAT+ to baseline northeast Asia excl capex	-	25-May-2021		USD/kg	->Hydrogen->Calculated costs->Asia-Pacific->Regional averages->Excl capex	Weekly
PA0037660	0	8	0	Hydrogen decarbonisation spread BAT+ to baseline net exporter excl capex	-	05-Oct-2021		USD/kg	->Hydrogen->Calculated costs->Net exporter->Excl capex	Weekly
PA0037663	0	8	0	Hydrogen baseline SMR Middle East average	-	25-May-2021		USD/kg	->Hydrogen->Calculated costs->Mideast Gulf->Regional averages->Incl capex	Weekly
PA0037664	0	8	0	Hydrogen BAT+ SMR+CCS Middle East average	-	25-May-2021		USD/kg	->Hydrogen->Calculated costs->Mideast Gulf->Regional averages->Incl capex	Weekly
PA0037665	0	8	0	Hydrogen low-C ATR+CCS Middle East average	-	25-May-2021		USD/kg	->Hydrogen->Calculated costs->Mideast Gulf->Regional averages->Incl capex	Weekly
PA0037666	0	8	0	Hydrogen no-C renewables+PEM Middle East average	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Mideast Gulf->Regional averages->Incl capex	Weekly
PA0037667	0	8	0	Hydrogen baseline SMR Middle East excl capex average	-	25-May-2021		USD/kg	->Hydrogen->Calculated costs->Mideast Gulf->Regional averages->Excl capex	Weekly
PA0037668	0	8	0	Hydrogen BAT+ SMR+CCS Middle East excl capex average	-	25-May-2021		USD/kg	->Hydrogen->Calculated costs->Mideast Gulf->Regional averages->Excl capex	Weekly
PA0037669	0	8	0	Hydrogen low-C ATR+CCS Middle East excl capex average	-	25-May-2021		USD/kg	->Hydrogen->Calculated costs->Mideast Gulf->Regional averages->Excl capex	Weekly
PA0037670	0	8	0	Hydrogen no-C renewables+PEM Middle East excl capex average	-	05-Jan-2021		USD/kg	->Hydrogen->Calculated costs->Mideast Gulf->Regional averages->Excl capex	Weekly
PA0037671	0	8	0	Hydrogen decarbonisation spread no-C to BAT+ Middle East	-	25-May-2021		USD/kg	->Hydrogen->Calculated costs->Mideast Gulf->Regional averages->Incl capex	Weekly
PA0037672	0	8	0	Hydrogen decarbonisation spread no-C to BAT+ Middle East excl capex	-	25-May-2021		USD/kg	->Hydrogen->Calculated costs->Mideast Gulf->Regional averages->Excl capex	Weekly
PA0037673	0	8	0	Hydrogen decarbonisation spread BAT+ to baseline Middle East	-	25-May-2021		USD/kg	->Hydrogen->Calculated costs->Mideast Gulf->Regional averages->Incl capex	Weekly
PA0037674	0	8	0	Hydrogen decarbonisation spread BAT+ to baseline Middle East excl capex	-	25-May-2021		USD/kg	->Hydrogen->Calculated costs->Mideast Gulf->Regional averages->Excl capex	Weekly