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Advanced Chemistry Cell (ACC) Battery Manufacturing in India

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In March 2022, four companies won shares of India's battery-cell scheme. One was **Hyundai Global Motors**. Only three signed the agreement four months later. The story shows why the scheme matters and why delivery is hard.

An **Advanced Chemistry Cell (ACC)** is a rechargeable energy-storage cell. India's **PLI ACC scheme** pays firms to make these cells at home. This lesson follows the scheme from the 2021 Cabinet decision to the tender of July 2026.

What is the PLI ACC scheme?

What is an Advanced Chemistry Cell?

An **ACC** is a new kind of energy-storage cell. It stores electric energy as electrochemical or chemical energy. It then converts that energy back into electricity.

Think of a phone battery. Inside it sits a cell. Many cells together make a pack for a car or a grid-storage unit. The scheme targets the cell itself.

When the Cabinet cleared the scheme in **May 2021**, all demand for ACCs was met through imports. The scheme aimed to reduce that import dependence. As of **27 March 2026**, demand was still met largely through imports.

Sources: pib.gov.in



What does the scheme offer?

The Cabinet approved a scheme for **50 GWh** of ACC manufacturing. It also covers **5 GWh** of "Niche" ACC. The outlay is **₹18,100 crore**.

A **Production Linked Incentive (PLI)** pays a firm for what it actually makes. This scheme pays over **5 years**, after a gestation period of **2 years**.

A firm must build at least **5 GWh**. It must reach **60%** domestic value addition within five years. Within two years it must reach **25%** and invest **₹225 crore per GWh**.

The scheme is **technology agnostic**. A firm may choose its own cell technology. It is also **end-use agnostic**. Cells can serve vehicles, defence, stationary storage and consumer electronics.

The government expected about **₹45,000 crore** of direct investment. It also expected net savings of **₹2,00,000 crore to ₹2,50,000 crore** on oil imports, as ACCs speed up EV adoption.

Sources: pib.gov.in

> **Quick check 1.** The PLI ACC scheme supports cells for electric vehicles only. *(True or False?)* See answer ↓

How were firms chosen in 2022?

How did the bidding work?

The Ministry of Heavy Industries (MHI) released the Request for Proposal on **22 October 2021**. Applications closed on **14 January 2022**. Ten companies bid, for about **130 GWh**.

Nine bids met the eligibility conditions. MHI opened their financial bids on **17 March 2022**. It used **QCBS**, which stands for Quality and Cost Based Selection. This method scores quality and price together.

Four companies won. **Rajesh Exports** got 5 GWh. **Hyundai Global Motors** got 20 GWh. **Ola Electric Mobility** got 20 GWh. **Reliance New Energy Solar** got 5 GWh, with 15 GWh waitlisted.

Reliance had quoted 20 GWh. An award need not match what a firm asks for.

Sources: pib.gov.in

May 2021 Cabinet approves the scheme.
Oct 2021 Request for Proposal released.
Mar 2022 Four winners announced.
Jul 2022 Three firms sign the agreement.

What happened to Hyundai Global Motors' share?

Four firms won in March 2022. Only **three** signed the Program Agreement on **28 July 2022**. They were Reliance New Energy, Ola Electric Mobility and Rajesh Exports.

Hyundai Global Motors was not among the signatories. Later releases say the opening round gave **30 GWh** to three companies. So Hyundai's 20 GWh did not stay allocated.

In **July 2023**, MHI announced re-bidding for the remaining **20 GWh**. The official releases checked do not explain why Hyundai Global Motors dropped out. Do not assume a reason.

Sources: pib.gov.in

> **Quick check 2.** Hyundai Global Motors signed the July 2022 Program Agreement. *(True or False?)* See answer ↓

What happened after 2022?

How did the re-bids fill the gap?

MHI released a fresh tender for **10 GWh** on **24 January 2024**. The maximum outlay was **₹3,620 crore**.

Seven bidders offered a cumulative **70 GWh**. That was seven times the capacity on offer. In **September 2024**, **Reliance Industries Limited** was awarded the 10 GWh through QCBS.

MHI signed the Programme Agreement with **Reliance New Energy Battery Limited** on **17 February 2025**. Awarded capacity then reached **40 GWh**, held by four firms, out of 50 GWh.

The last **10 GWh** was set aside for Grid Scale Stationary Storage (GSSS). MHI told Parliament in March 2025 that it had started preparing bid documents for it.

Sources: pib.gov.in

> **Quick check 3.** By February 2025, 40 GWh of the 50 GWh target had been awarded. *(True or False?)* See answer ↓

How much has actually been built?

Awarded capacity is not working capacity. As of **13 February 2026**, **40 GWh** was awarded to four firms. Installed capacity was about **1 GWh**, at **Ola Cell Technologies**. The other three firms had installed none.

The sites differ. ACC Energy Storage has 5 GWh at Dharwad, Karnataka. Ola Cell Technologies has 20 GWh at Krishnagiri, Tamil Nadu. Reliance New Energy Battery Storage has 5 GWh at Jamnagar, Gujarat. Reliance New Energy Battery holds the 10 GWh from Round 2.

Ola has run pilot production since **March 2024**. By **31 December 2025**, firms reported **₹3,237 crore** of investment and **1,118** jobs.

On **12 December 2025**, PIB said no beneficiary firm had claimed any incentive. A PLI pays only after production, so this fits the slow start.

MHI listed causes of delay. They include unavailable technology, a skills gap, imports of critical equipment and a shortage of upstream materials. Those materials include cathode and anode active materials and electrolyte. The releases checked do not describe penalties for delay.

Sources: pib.gov.in

Awarded40 GWh to four firms (Feb 2026).
InstalledAbout 1 GWh, at Ola Cell Technologies.
Incentive claimed None by any firm (Dec 2025).

> **Quick check 4.** As of February 2026, India had installed all 40 GWh of awarded ACC capacity. *(True or False?)* See answer ↓

How does the ACC scheme sit beside the PLI-Auto and FAME schemes?

Three schemes often appear together in questions. Each does a different job.

The **PLI ACC scheme** pays makers of battery cells. Its outlay is **₹18,100 crore**.

The **PLI-Auto scheme** was approved on **15 September 2021**. Its outlay is **₹25,938 crore**. Electric vehicles are covered under it.

FAME India Phase II helps buyers. Its budgetary support is **₹10,000 crore**. The incentive comes as an upfront cut in the purchase price of an electric vehicle. For electric two-wheelers, FAME-II first paid ₹15,000 per kWh, capped at 40% of the vehicle cost. A notification of 19 May

2023 cut this to ₹10,000 per kWh, capped at 15% of the ex-factory price. The new rate applied to vehicles registered on or after 1 June 2023. Treat both rates as history, not as an open 2026 benefit.

A memory hook: ACC pays the cell maker, PLI-Auto pays the vehicle and parts maker, FAME pays the buyer.

Sources: pib.gov.in

Why is the last 10 GWh meant for grid storage?

In July 2024, the Expert Group of Secretaries (EGoS) made a recommendation. After that, MHI began finalising bid documents for the balance **10 GWh**. These are for **Grid Scale Stationary Storage (GSSS)**.

Grid storage holds power from the grid or from renewable plants. It releases that power when needed. The tender aims to support renewable energy integration and energy security.

On **29 July 2026**, MHI held a pre-bid conference at India Habitat Centre, New Delhi. More than **30** prospective bidders and industry stakeholders took part. The bid documents had gone up on the CPP Portal on **15 July 2026**.

So the last tranche is not tied to any one company. It is open to fresh bidders, and it is for storage, not for cars.

Sources: pib.gov.in

What is happening in 2026?

What is the July 2026 tender?

On **15 July 2026**, MHI released a Request for Proposal for a global tender. It seeks firms to set up **10 GWh** of ACC capacity. The capacity is earmarked for **Grid-Scale Stationary Storage (GSSS)**.

Stationary storage helps power grids as renewable energy grows. It holds power when supply is high. It releases power when needed.

The pre-bid conference met on **29 July 2026** in New Delhi. More than 30 prospective bidders attended. NITI Aayog, MNRE and the Ministry of Power also took part. The deadline for queries was 20 August 2026.

Bids were due on **13 October 2026**. Technical bids were due to open on **14 October 2026**. Bidding is two-stage QCBS on the CPP Portal.

As of **16 October 2026**, the releases checked name no winner. The result is still to come.

Sources: pib.gov.in



> **Quick check 5.** Opening technical bids on 14 October 2026 means winners had been named. *(True or False?)* See answer ↓

Practice MCQ

Practice MCQs

1. The Union Cabinet approved the PLI Scheme for Advanced Chemistry Cell (ACC) Battery Storage in May 2021, targeting how much domestic manufacturing capacity?

A. 100 GWh

B. 18 GWh

C. 50 GWh

D. 10 GWh

See answer ↓

2. In the March 2022 ACC PLI allocation, which company was later found to have no real connection to the automaker it was named after?

A. Reliance New Energy Solar

B. Ola Electric Mobility

C. Rajesh Exports

D. Hyundai Global Motors

See answer ↓

3. Following Hyundai Global Motors' withdrawal from the ACC PLI scheme in November 2022, its 20 GWh capacity was eventually split between which two outcomes?

A. 10 GWh to Ola Electric, and 10 GWh cancelled entirely

B. All 20 GWh to Rajesh Exports

C. 10 GWh to Reliance New Energy Solar, and 10 GWh for Grid-Scale Stationary Storage

D. 20 GWh returned to the Ministry's general budget

See answer ↓

4. On 15 July 2026, the Ministry of Heavy Industries launched a Global Tender for the ACC PLI scheme's final 10 GWh. What application is this capacity earmarked for?

A. Railway signalling systems

B. Consumer electronics batteries

C. Electric two-wheelers only

D. Grid-Scale Stationary Storage (GSSS)

See answer ↓

5. As of October 2025, independent analysis found that roughly what share of the ACC PLI scheme's target capacity had actually been commissioned?

A. 2.8%

B. 25%

C. 80%

D. 50%

See answer ↓

Answer Key

1. **C.**
   The answer is **50 GWh**. The Cabinet approved the scheme in May 2021 with an outlay of ₹18,100 crore. The target is 50 GWh of ACC capacity.
   18 GWh and 10 GWh are too low. The figure 10 GWh is only the size of the July 2026 tender. 100 GWh is double the target. The 130 GWh figure is the total that ten firms bid for in 2022.
   Memory hook: ₹18,100 crore buys 50 GWh.
   ↑ Q1
2. **D.**
   The answer is **Hyundai Global Motors**. It was named among the four winners in March 2022, with 20 GWh. It was missing when three firms signed in July 2022.
   Rajesh Exports, Ola Electric Mobility and Reliance New Energy Solar all signed the agreement. So none of them fits.
   The idea that Hyundai Global Motors had no real link to the car maker comes from press reports. The official releases do not say it. Learn the official facts: it won 20 GWh and did not sign.
   Memory hook: four won, three signed, Hyundai Global Motors is the missing one.
   ↑ Q2
3. **C.**
   The answer is **10 GWh to Reliance and 10 GWh for Grid-Scale Stationary Storage**. The 20 GWh left after 2022 went to re-bidding. In the 2024 re-bid, Reliance won 10 GWh. The other 10 GWh was kept for grid storage.
   Ola kept its own 20 GWh, so it is not the recipient. Rajesh Exports signed for its own 5 GWh, so it did not take all 20 GWh. The capacity was re-bid rather than returned to the budget.
   The stem's November 2022 withdrawal date does not appear in the official releases checked. The re-bid steps do.
   Memory hook: 20 left over, 10 + 10.
   ↑ Q3

4. **D.**
   The answer is **Grid-Scale Stationary Storage (GSSS)**. The 15 July 2026 notice earmarks the 10 GWh for grid storage. That supports a power system with more renewable energy.
   Electric two-wheelers only is wrong. The scheme is end-use agnostic, and this tender names grid storage. Railway signalling is not mentioned anywhere in the notice. Consumer electronics is an allowed use under the scheme, but this tender is for grid storage.
   Memory hook: the last 10 GWh goes to the grid.
   ↑ Q4
5. **A.**
   The answer is **2.8%**. That figure comes from an independent analysis for October 2025. It shows a very small share of capacity was working.
   The official figure is similar. PIB reported about 1 GWh installed, at Ola Cell Technologies, in December 2025 and February 2026. One GWh is 2% of the 50 GWh target.
   25%, 50% and 80% are far too high. Even 25% would mean 12.5 GWh installed.
   Memory hook: awarded is big, installed is small, in low single digits.
   ↑ Q5

Quick-check answers

1. **False.** The scheme is end-use agnostic. It serves vehicles, defence, stationary storage and consumer electronics. ↑ 1
2. **False.** Three selected bidders signed on 28 July 2022. Hyundai Global Motors was not one of them. ↑ 2
3. **True.** The February 2025 agreement took awarded capacity to 40 GWh across four firms. Ten GWh remained. ↑ 3
4. **False.** Installed capacity was about 1 GWh. The other 39 GWh was awarded but not yet installed. ↑ 4
5. **False.** Opening technical bids starts evaluation. Financial bids and selection come later. ↑ 5

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