



Electrify Our World™



**Stephen Oliver, VP Corporate
Marketing & Investor Relations**
stephen.oliver@navitassemi.com



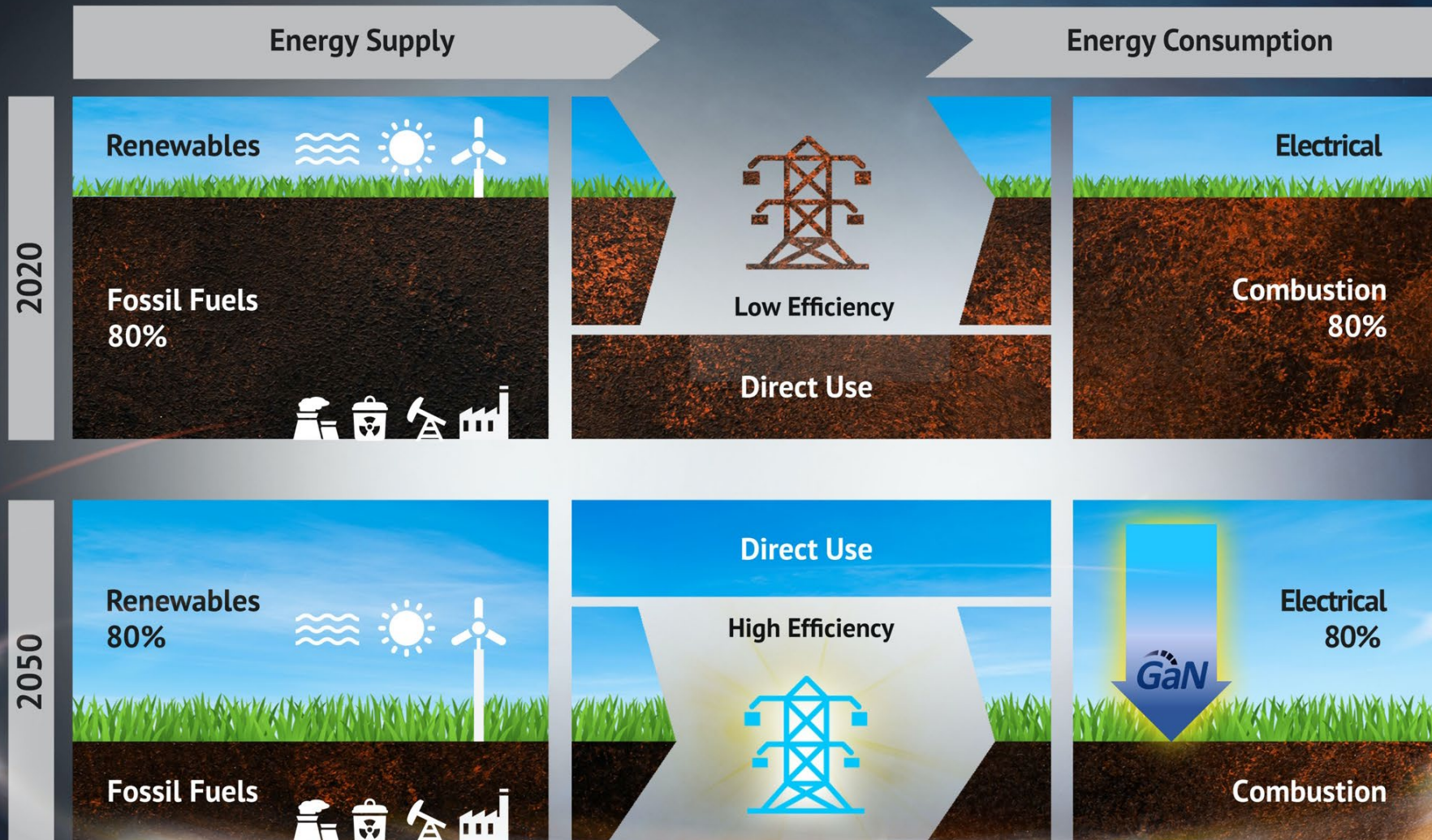
Navitas

Energy • Efficiency • Sustainability

Nasdaq : NVTS

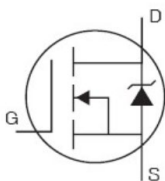


Electrify Our World™



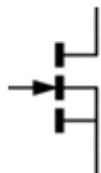
The GaNFast Revolution, Evolution

Silicon FET



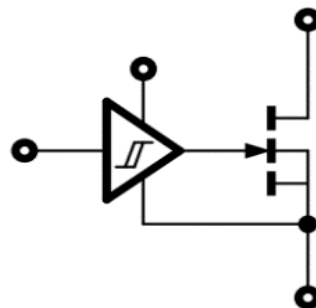
- Slow, legacy technology

Discrete GaN



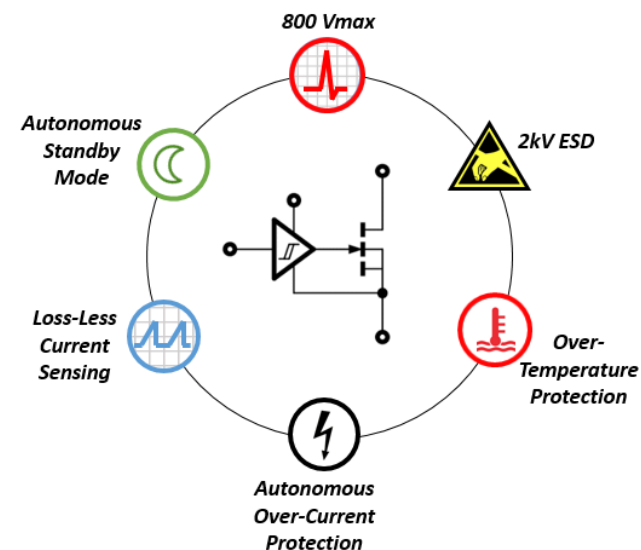
- Exposed gate
- Unknown reliability

GaNFast™ Power IC



- Integrated Gate Drive
- Proven Reliability

GaNFast™ with GaNSense™

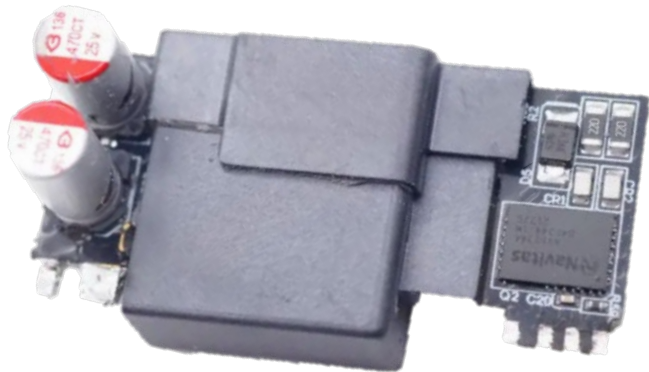


- Autonomy
- Efficiency

“Detect to protect in 30 ns!”

120W Xiaomi Ultrafast Charger

- Xiaomi Note 11 Pro+
 - 4,500 mAh battery (graphene Li-ion)
 - 0-100% in 17 minutes
- 120W Ultrafast Charger
 - 55 x 55 x 28.4 mm = 86 cc = 1.4 W/cc
 - DCM boost PFC:
 - NV6134 GaNFast with GaNSense
 - HFQR DC-DC
 - NV6134 GaNFast with GaNSense
 - Planar transformer (shown)



Fast Chargers: ~2% of \$2B: GaN Growth Ahead! Navitas

Tier 1 OEMs



Aftermarket Examples



160+

GaN Chargers In Mass Production

150+

GaN Chargers In Development (MP 2021-2022)

90%+

Mobile OEMs Designing With Navitas GaN ICs

30M+

GaN ICs Shipped⁽¹⁾

Zero

GaN Field-Failures⁽¹⁾

Electrify Our World™

• Consumer

- Up to 3x smaller, lighter, low-profile
- TV: UHD to 8K needs 4x power
- **>\$2B/yr potential⁽¹⁾**



• Solar

- 25% *cost reduction* of micro-inverters⁽³⁾
- Up to 40% energy savings
- *Improve payback by 10%+* ⁽⁴⁾
- **Residential potential >\$1B/yr⁽⁵⁾**



⊖ ENPHASE “It’s the *end of the road for silicon.*”
 “GaN offers >10x frequency, *significant* cost advantages”

• Data Center: Save \$1.9B/yr ⁽¹¹⁾

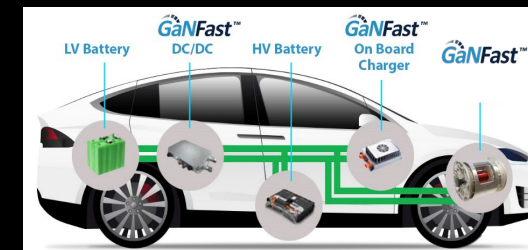
- 44% of cost is electricity⁽¹¹⁾, GaN could reduce by up to 10%⁽¹²⁾
- Save >15 TWh or \$1.9B/yr, 2-month ROI⁽¹³⁾
- **\$1B+ /yr potential⁽¹⁴⁾**



“GaN is a breakthrough new technology”
 “Navitas: excellent partner, industry-leading GaN ICs”

• EV: Accelerate Adoption by 3 years ⁽⁶⁾

- 3x faster charging⁽⁷⁾
- 70% energy savings enables
- 5% longer range, or 5% lower battery cost⁽⁸⁾
- **>\$2.5B/yr potential in 2030⁽⁹⁾**



“Navitas advantages: *simplicity of driving, high-speed, reliability & compact form factor.*”

GaNFast is Green:

Accelerating Major Customers' Net Zero and Carbon Neutral Goals

GaN Power ICs Reduce CO₂ Emissions

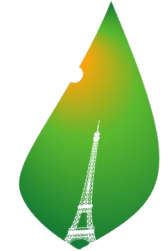
4x-10x lower component CO₂ footprint than silicon⁽¹⁾

28% lower lifetime CO₂ footprint for chargers / adapters⁽²⁾

Accelerate transition from ICE to EV by **3 years**, saving **20%/yr** of road sector emissions by 2050 ⁽⁴⁾

GaN addresses **2.6 Gton / year** by 2050⁽⁵⁾

Every
GaNFast™ power IC
shipped saves⁽³⁾
4 kg CO₂



PARIS2015
UN CLIMATE CHANGE CONFERENCE
COP21·CMP11



(1) Navitas and Earth-Shift Global analysis. 4x lower for 2021, 10x lower by 2022 per life-cycle analysis

(2) Navitas and Earth-Shift Global estimated based on 65W charger per life-cycle analysis

(3) Navitas estimate based on GaN vs Si total life-cycle analysis.

(4) DNV estimate for 75%-adoption milestone pull-in, total road sector benefit

(5) Company information, DNV GL, EPA, IEA, International Renewable Energy Agency (IRENA). See 5-7-21 Investor presentation for details (filed with SEC)

Derived from demand and energy efficiency CO₂ reduction of 1.4 Gt; assumes a \$0.12 / kWh cost of electricity and a carbon to energy ratio of 0.00071 tons / kWh, aligned with the EPA's marginal emission rate.

References to Slide 5

1. Based on Navitas measurements comparing typical 150W 65 kHz Si-based AC/DC power adapter to 150W 1MHz GaN-based power adapter prototype.
2. Based on information provided to management by potential customers.
3. EnergySage Solar Marketplace, 2020.
4. Based on estimates from Gartner, Pulsenews, WitsView, Statista and Navitas estimates
5. Navitas est. vs. Si-based 500W residential micro-inverters assuming GaN-based inverter enables 40% reduced power loss and 25% lower inverter costs
6. Navitas est. average 2021-2030, residential installations, MarketsandMarkets, IHS, Fraunhofer ISE, customer input.
7. Navitas engineering estimate 6.6 kW Si OBC vs. 21 kW GaN OBC assuming a 90 kWh battery and 80A wall charge limit.
8. Assumes 150 kW traction inverter, 100 kWh battery, \$100/kWh battery cost and typical 230 mile range. Based on DNV and Navitas analysis
9. Based on BCG Research, Yole Research and Navitas analysis.
10. Navitas estimate based on discussions with major suppliers of power electronics to the electric vehicle industry.
11. Navitas estimate based on a) Navitas server/datacom forecast & AAAS data, b) \$0.12/kWhr, c) Si vs. GaN \$/W and d) data center loading profile.
12. Navitas estimated based on known existing Si-based solutions to deliver >500A next-generation data processors to Navitas targets for new GaN-based AC/DC and DC/DC for these same next-generation data processors.
13. Schneider Electric. White Paper – Determining Total Cost of Ownership for Data Center and Network Room Infrastructure.
14. Navitas measurements based on existing Si-based 3.2kW AC/DC server power supply to a 1 MHz GaN-based 3.2kW AC/DC prototype.