GridNova

GNV Token — Decentralized Energy & AI Compute Platform

"Power the AI Economy from Your Garage"

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CHAPTER 01

Executive Summary

GridNova (GNV) represents a pioneering step in the convergence of decentralized energy networks and AI-driven compute coordination. As the global demand for artificial intelligence grows exponentially, the need for efficient, sustainable, and intelligent energy management becomes increasingly critical. North America faces mounting pressures on its energy grids, driven by rapid AI infrastructure expansion and the growing adoption of renewable energy resources such as home solar panels, battery storage systems, and electric vehicle (EV) charging stations. GridNova's mission is to leverage these distributed energy and compute assets to create a decentralized, AI-optimized network that balances electricity demand, optimizes compute allocation, and rewards participants through the GNV token economy.

At the core of GridNova's vision is the DePIN (Decentralized Physical Infrastructure Network) concept, one of 2026's most compelling narratives. DePIN emphasizes the integration of real-world infrastructure with blockchain-based coordination, allowing individual participants to contribute resources while being compensated transparently and securely. GridNova applies this model specifically to the North American energy and AI compute ecosystem, addressing inefficiencies in energy distribution, reducing operational costs for small-scale energy producers, and enabling AI data centers to access low-cost, renewable energy in real time.

GNV, the native utility token of GridNova, plays a central role in this ecosystem. It facilitates node staking, energy and compute settlement, task matching, and device reputation scoring. Unlike traditional tokens, GNV's long-term value is directly tied to actual energy and compute transactions within the network. Participants—from households with solar panels to small data centers—are incentivized to contribute resources, ensuring that the network grows sustainably and efficiently.

"Power the AI economy from your garage." — GridNova transforms homes, garages, and small facilities into active contributors to the AI economy, offering accessibility, sustainability, and real-world impact.

CHAPTER 02

Market Opportunity & Problem Statement

The North American energy and electricity markets are undergoing a profound transformation. Traditional centralized grids face increasing strain due to rising electricity demand, aging infrastructure, and the integration of intermittent renewable energy sources. At the same time, the rapid expansion of AI workloads has created unprecedented pressure on power grids, as AI data centers require significant and consistent electricity. This combination presents both a challenge and an opportunity for innovative, decentralized solutions.

The AI-driven compute sector alone is experiencing exponential growth, with demand for GPUs, TPUs, and specialized processors outpacing the efficiency of traditional energy distribution systems. Data centers face significant operational costs driven by electricity prices and grid stability concerns. Concurrently, distributed energy assets such as residential solar panels, home battery storage, and EV charging stations remain largely underutilized, despite their potential to contribute both energy and compute resources.

> **The Critical Gap:** No existing platform integrates decentralized energy supply coordination with real-time AI compute demand allocation. GridNova fills this gap — unlocking value for homeowners, EV operators, and AI workload providers simultaneously.

GridNova identifies a critical gap: while existing solutions focus on centralized management of energy or isolated AI compute scheduling, no integrated, decentralized network coordinates energy supply with AI demand in real time. Homeowners, EV owners, and small-scale data center operators have little incentive to optimize their energy contributions, and AI operators lack access to a flexible, low-cost, and sustainable energy source.

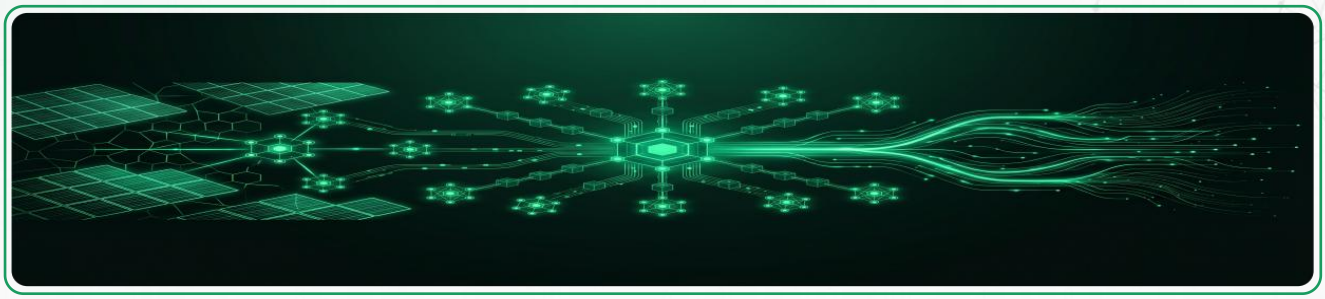
By bridging this gap, GridNova positions itself at the intersection of two high-growth sectors: renewable energy and AI compute infrastructure. The platform unlocks value for multiple stakeholders—allowing households and small operators to monetize idle energy and computational resources, while AI workloads gain access to dynamic, cost-efficient energy allocation.

In summary, the opportunity lies in leveraging distributed assets to meet the demands of a rapidly expanding AI economy. GridNova's decentralized platform converts underutilized energy and compute infrastructure into actionable resources, fostering a sustainable, transparent, and scalable ecosystem.

CHAPTER 03

Platform Overview

GridNova is a decentralized platform designed to seamlessly coordinate distributed energy resources with AI compute demand. At its core, the platform enables a network of nodes—ranging from individual households to small-scale data centers—to participate in energy and computational resource sharing. By integrating AI-driven scheduling with blockchain-based settlement, GridNova creates a dynamic, transparent, and highly efficient ecosystem.



GridNova Decentralized Energy & Compute Network

Node Types and Participation

GridNova nodes encompass three primary categories: home solar and battery storage systems, electric vehicle (EV) charging stations, and edge data centers. Home solar and battery nodes allow homeowners to contribute surplus energy to the network, while EV charging stations can dynamically balance power flows based on demand. Edge data centers contribute both compute capacity and energy demand flexibility.

AI-Driven Energy and Compute Scheduling

The platform employs advanced machine learning algorithms to forecast energy supply, grid load, and computational demand. By continuously analyzing electricity prices, network congestion, and AI task requirements, GridNova intelligently schedules energy dispatch and compute allocation. Surplus solar energy from a residential node can be redirected to an edge data center running AI workloads, while EV charging can be deferred to periods of lower grid load.

User and Node Interaction Flow

Users interact with the GridNova platform through an intuitive dashboard providing real-time insights into energy production, consumption, and rewards. Smart contracts on the Solana and Base blockchains automatically record energy contributions, compute task fulfillment, and GNV token settlements, ensuring transparency, immutability, and trustless operation.

Security, Privacy, and Resilience

GridNova prioritizes cybersecurity and data privacy. Node communications are encrypted end-to-end, and sensitive operational data is anonymized before processing by the AI coordination engine. The decentralized architecture enhances resilience: if a node goes offline, the network automatically redistributes energy flows and compute tasks to maintain stability.

CHAPTER 04

Technology & Infrastructure

> **Blockchain Stack:** GridNova runs on **Solana** (high-frequency settlement, sub-second finality) and **Base** (EVM compatibility, broad DeFi ecosystem integration). This dual-chain approach delivers both performance and interoperability.

GridNova's technological foundation integrates cutting-edge blockchain infrastructure with advanced decentralized energy and compute coordination protocols, enabling a secure, scalable, and resilient ecosystem. The platform leverages Solana and Base blockchains, selected for their high throughput, low latency, and cost-efficient transaction processing.

Decentralized Coordination Protocol

At the core of GridNova's platform is a decentralized coordination protocol that aligns energy supply with compute demand. Each node communicates its available resources, energy output, and computational capacity to the network. The AI-driven scheduler continuously analyzes grid load, energy pricing, and AI task demand to optimize allocation.

On-Chain Node Reputation Scoring

Node reputation scoring is a critical component of GridNova's infrastructure. Each node's historical performance, contribution reliability, and energy efficiency are recorded on-chain, creating a transparent and verifiable reputation system influencing reward distribution and task matching efficiency.

Smart Contract Automation

Smart contracts automate settlement and reward distribution within the network. All energy contributions, compute task completions, and incentive disbursements are executed via decentralized contracts, reducing administrative overhead and eliminating intermediaries. These contracts are fully auditable.

Scalability and Cross-Chain Architecture

GridNova is designed for scalability and cross-chain potential. The modular architecture allows new energy devices, compute nodes, or partner blockchains to integrate seamlessly. As the network grows, GridNova can incorporate additional renewable energy sources, edge computing clusters, and AI workloads.

CHAPTER 05

Tokenomics (GNV)

The GridNova Token (GNV) serves as the primary utility and incentive mechanism within the GridNova ecosystem, aligning the interests of energy contributors, AI compute operators, and network participants. GNV facilitates node staking, energy settlement, compute task matching, and device reputation scoring.

Token Details

Parameter	Value
Name	GridNova Token
Symbol	GNV
Total Supply	150,000,000 GNV
Networks	Solana + Base
Initial DEX Launch	Raydium / Aerodrome
Suggested Launch Price	$2.3
Initial FDV	$345,000,000
Initial Circulation	10%

Token Allocation

The token distribution is structured to incentivize early adoption, long-term participation, and ecosystem growth. The chart below visualizes the allocation across all stakeholder categories:

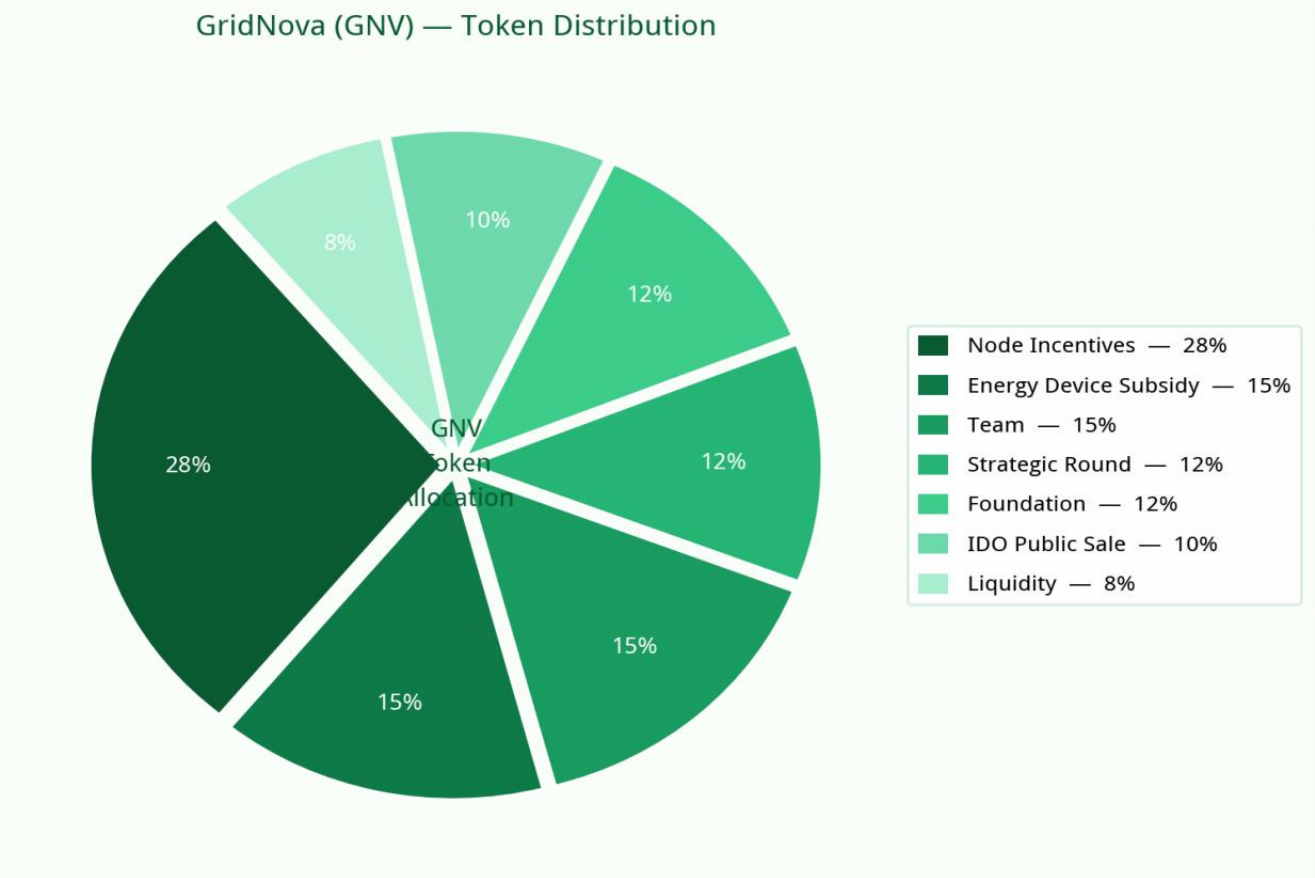


Figure 1 — GNV Token Distribution by Category

Utility and Value Capture

1. Node Staking: Participants stake GNV to operate nodes, securing their right to process energy and compute tasks.

2. Energy Settlement: GNV tokens settle payments between energy producers and AI compute operators, providing seamless, transparent transactions.

3. Compute Task Matching: AI workloads are allocated to nodes based on availability, efficiency, and reputation, with GNV facilitating automated compensation.

4. Device Reputation Scoring: Nodes earn reputation points based on historical performance, reliability, and energy efficiency, influencing rewards and task allocation.

> **Long-Term Value & Anti-Inflation Design:** GNV's economic model maintains value through real network activity rather than speculative inflation. Token issuance and reward mechanisms are calibrated to tie GNV value directly to actual energy transactions, dispatch events, and AI task completions.

CHAPTER 06

Incentive Mechanisms & Node Economics

GridNova's success hinges on a well-designed incentive structure that encourages node participation, maximizes network efficiency, and aligns the interests of all stakeholders. Nodes—including home solar and battery systems, EV charging stations, and edge data centers—play a central role in supplying energy and compute resources.

Node Onboarding and Staking Rewards

New nodes join the network by registering their energy or compute resources and staking a minimum amount of GNV tokens. Staking acts as a security and commitment mechanism, incentivizing nodes to remain active and reliable. Nodes earn GNV rewards based on the quantity and quality of energy contributed, compute tasks completed, and overall efficiency.

Device Subsidy Program & ROI

To accelerate adoption, GridNova provides energy device subsidies for new participants, reducing the upfront cost of solar panels, batteries, and EV charging equipment. Subsidies are directly linked to the node's ongoing contribution: as the node meets performance benchmarks, the subsidy is gradually unlocked. Nodes receive projected ROI estimates, allowing them to evaluate potential earnings.

On-Chain Reputation Scoring

Every node is assigned a reputation score based on historical performance, reliability, energy efficiency, and task completion consistency. Reputation scores are stored on-chain, creating a transparent and verifiable metric influencing task allocation and reward distribution. Higher-scoring nodes are prioritized for AI compute tasks and energy dispatch opportunities.

AI Scheduling Impact on Revenue

GridNova's AI-driven scheduler continuously analyzes grid load, energy availability, and compute demand to optimize task assignments. Nodes with flexible energy storage or compute capacity may be matched to higher-value AI workloads, resulting in variable GNV rewards depending on real-time network conditions.

By combining staking, subsidies, on-chain reputation, and AI-driven task matching, GridNova establishes a robust economic framework that transforms distributed energy and compute assets into a coordinated, sustainable, and profitable ecosystem.

CHAPTER 07

Roadmap & Development Plan

GridNova's roadmap outlines a strategic, phased approach to building a robust decentralized energy and compute ecosystem, ensuring that both technology and community adoption evolve in tandem.

Phase 1 Foundation and Technology Development

Platform architecture, blockchain integration, and AI-driven coordination algorithms. Core components—Solana and Base blockchain deployment, smart contract development, and secure node onboarding protocols—are completed. Pilot testing of AI scheduling algorithms is conducted to validate energy and compute task matching.

Phase 2 Node Integration and Early Adoption

GridNova opens its network to early adopters, including residential solar owners, EV charging stations, and small-scale edge data centers. Device subsidies are deployed to lower entry barriers. The GNV token is introduced for staking, energy settlement, and incentive distribution.

Phase 3 DEX Launch and Community Expansion

GNV launches on decentralized exchanges including Raydium and Aerodrome, providing liquidity and enabling broader community participation. Strategic partnerships are established with energy providers, AI operators, and hardware manufacturers.

Phase 4 Scaling and Cross-Chain Integration

The platform scales to support a larger number of nodes and higher AI compute demands. GridNova's modular architecture allows new energy sources, edge data centers, and partner blockchains to integrate seamlessly. AI scheduling algorithms are continuously optimized.

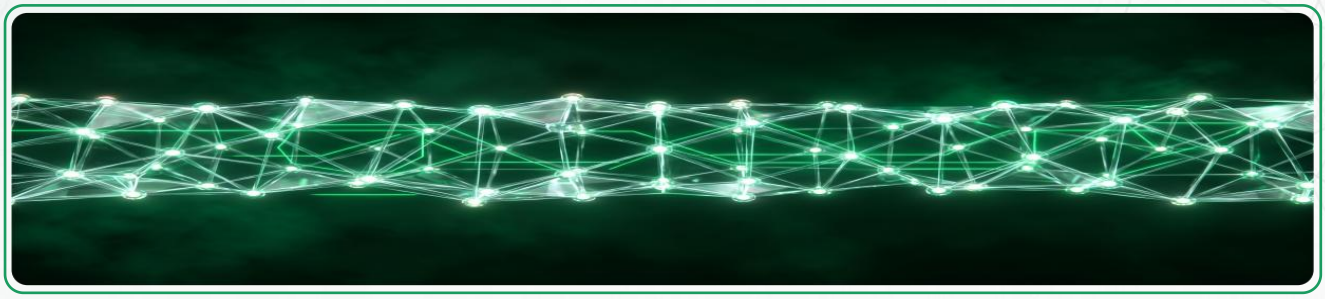
Phase 5 Long-Term Sustainability and Ecosystem Governance

GridNova emphasizes sustainable growth, network resilience, and decentralized governance. Token holders vote on protocol upgrades, incentive adjustments, and strategic initiatives. The Foundation ensures long-term funding for ecosystem development.

CHAPTER 08

Governance & DAO Framework

Effective governance is critical to the long-term success of the GridNova ecosystem. GridNova implements a hybrid governance framework that combines foundation oversight with decentralized autonomous organization (DAO) mechanisms, empowering token holders and supporting strategic decision-making.



GridNova DAO Governance — Decentralized Decision-Making Framework

Foundation Governance

The GridNova Foundation serves as the initial steward of the ecosystem, responsible for funding development, managing strategic partnerships, and overseeing early-stage operational decisions. The Foundation holds GNV tokens reserved for ecosystem incentives, energy device subsidies, and protocol maintenance.

Token Holder Voting Rights

GNV holders are granted voting rights proportional to their stake, enabling direct participation in decisions affecting the network. Voting topics may include protocol upgrades, tokenomics adjustments, energy subsidy allocation, and proposals for new node types or partnerships.

Decentralized Decision-Making

GridNova's DAO framework leverages smart contracts to automate voting, proposal submission, and execution processes. Proposals are submitted by token holders or the Foundation and evaluated through transparent, on-chain mechanisms. Approved proposals are automatically executed, reducing administrative overhead.

Incentivizing Governance Participation

To encourage meaningful engagement, GNV rewards are distributed for active participation in governance processes. Token holders and node operators earn additional GNV for voting, submitting proposals, or contributing to protocol development discussions.

CHAPTER 09

Risk Factors & Compliance

While GridNova presents significant opportunities at the intersection of decentralized energy and AI compute coordination, potential participants and investors must be aware of the inherent risks and regulatory considerations. Understanding these risk factors is critical to ensuring informed decision-making.

Energy Market Volatility

Energy prices in North America are subject to fluctuations due to supply-demand imbalances, seasonal variations, and regulatory changes. Nodes relying on energy sales for GNV rewards may experience variable returns. GridNova mitigates this risk by leveraging AI-driven scheduling that dynamically allocates energy resources based on real-time pricing.

AI Scheduling and System Security

The GridNova platform relies heavily on AI-driven algorithms. Errors or unforeseen conditions could lead to suboptimal allocations. Cybersecurity risks include potential network attacks, data breaches, or smart contract vulnerabilities. Continuous monitoring, regular security audits, and redundant fail-safes minimize exposure.

Regulatory and Cross-State Compliance

GridNova operates within a complex regulatory landscape. Energy generation, distribution, and storage are subject to federal and state-level regulations, which may impact node participation or reward structures. The GridNova Foundation actively monitors regulatory developments and maintains compliance policies.

Market Competition and Technology Risks

The intersection of decentralized energy and AI compute is highly competitive. Rapid technological changes could alter the competitive landscape. GridNova mitigates these risks by maintaining a flexible, modular architecture and by fostering strategic partnerships to remain at the forefront of innovation.

CHAPTER 10

Conclusion & Vision

GridNova envisions a future where distributed energy resources and AI compute infrastructure operate in a coordinated, decentralized ecosystem. By integrating home solar panels, battery storage, EV charging stations, and edge data centers into a single network, GridNova enables participants to contribute resources, optimize energy flows, and support AI workloads efficiently.

At the heart of this vision is the GNV token, which serves as both a utility and incentive mechanism, driving participation, ensuring fair settlement, and enabling transparent reputation scoring. Through AI-driven scheduling, real-time energy allocation, and blockchain-based settlements, GridNova creates a self-sustaining ecosystem where network growth and value creation are directly linked to actual energy and compute activity.

GridNova's long-term goal is to expand across North America and eventually global markets, establishing a scalable, resilient, and sustainable model for decentralized energy and compute coordination. By leveraging modular architecture and cross-chain interoperability, the platform ensures adaptability to emerging technologies, energy trends, and AI workloads.

"Power the AI Economy from Your Garage" — GridNova is not just a token. It is a framework for a smarter, cleaner, and more resilient energy and compute ecosystem, designed for the demands of tomorrow's AI-driven world.